Roland®

S-550

Owner's Manual ver 1.1

The S−550, 16 voice polyphonic sampler module, can record (sample and record into computer memory) all sorts of sounds, then play these sounds. It adopts the expanded 16 bit system that processes all signals digitally and therefore creates sounds of excellent quality. It features a maximum sampling time of 28.8 seconds at 30kHz sampling, and a memory capacity of 64 Tones, and 32 Patches.

FEATURES

- The S−550's digital filter circuits allow you to record all sorts of sounds without affecting the quality of the sounds.
- The S−550's digital editing functions including the newly developed TVF (Time Variant Filter) can modify the sampled voice without reducing the sound quality.
- The S−550 can select a sampling frequency of 30 or 15kHz.
- Each of the four Wave Banks can store up to 7.2 seconds of data when the 30kHz sampling frequency is selected.
- The Multi Patch Play function allows the S−550 to simultaneously play up to eight Patches using eight individual receive channels.
- 16 voices can be assigned to the eight Individual Output Jacks in 24 different ways. This enables you to play Patches or Tones separately through the eight output jacks.
- The S−550 can be set up with a CRT color monitor display featuring an RGB input or a home TV set featuring a video connector, or a black and white display for a computer. Moreover, using the supplied Mouse you can perform all the necessary operations, watching the display without touching the buttons on the panel.
- The entire data (sound data, function data and MIDI data) programmed in the S−550 can be saved onto 3.5" floppy disks for future use.
- The optional Remote Controller RC−100 allows you to control the S−550 without hardly using the front panel.

*It is possible to load e date disk progremmed by the S−50 or a Sound Library disk of the S−50 into the S−550 with the Convert Load function. Also, an S−50 disk can be converted into an S−550 disk with the Convert Disk function.

CONTENTS

Panel Description 4

Important Notes 6

Connections 10

Outline 13
1. The S−550's Six Modes 14
2. Data Programming and Saving 15
a. Sound Data (Block Data) 15
b. Function Data and MIDI Data 17
c. Data Saving 17
3. Basic Procedure 18

Preparation for Playing 22
1. Checking the supplied disks 22
2. Power−up and Booting 23
3. Backup of the System Disks 26

[1] Playing 28
Standard — Standard Display (Play Mode) 31
Split Disp — Voice Group Messages (Play Mode) 32
8 Key Disp — All Voice Group Messeges (Pley Mode) 33

[2] Sampling 34
Wave Scope — Wave Scope of Input Signal (Utility Mode) 35
Sampling — Sampling (Utility Mode) 36

[3] Editing Wave Data 44
Truncate — Erasing a part of Wave Data (Utility Mode) 46
Mix — Mixing Wave Data (Utility Mode) 49
Combine — Combining Wave Data (Utility Mode) 51
D.Filter — Digital Filter (Utility Mode) 54
Wave Loop — Edit for Looping (Utility Mode) 57
Wave Draw — Drewing Wave Data (Utility Mode) 59
Delete — Deleting a Tone (Edit Mode) 63
Copy/Move — Copying and Moving a Tone (Edit Mode) 65
Disp. Wave — Monitoring a waveform of a Weve Bank (Edit Mode) 67

[4] Setting Tone Parameters 69
Tone PRM — Setting Main Tone Parameters (Edit Mode) 70
Loop — Setting a Loop (Edit Mode) 75
LFO — Setting LFD modulation (Edit Mode) 82
TVF — Setting Time Variant Filter (Edit Mode) 86
TVA — Setting Time Variant Amplifier (Edit Mode) 92
Tone Map — Parameter Setting with the Tone Map (Edit Mode) 96

5 Making a Patch 98
Petch PRM — Satting Mein Petch Paremeters (Edit Mode) 99
Split — Assigning Tones to Note Numbers (Edit Mode) 105
Petch Map — Peremater Setting with the Patch Map (Edit Mode) 109

6 S-550's Function Mode 110
Master — Setting the Functions of tha S-550 (FUNC Mode) 111
Initialize — Initializing Peremeters (FUNC Moda) 114

7 MIDI Setting and Monitoring Receiva Messages 116
Message — Setting MIDI Receive Channels end Racaive Switchas (MIDI Mode) 117
Prog No. — Setting Progrem Chenge Numbers (MIDI Mode) 119
Monitor — Monitoring MIDI Messeges (MIDI Mode) 120

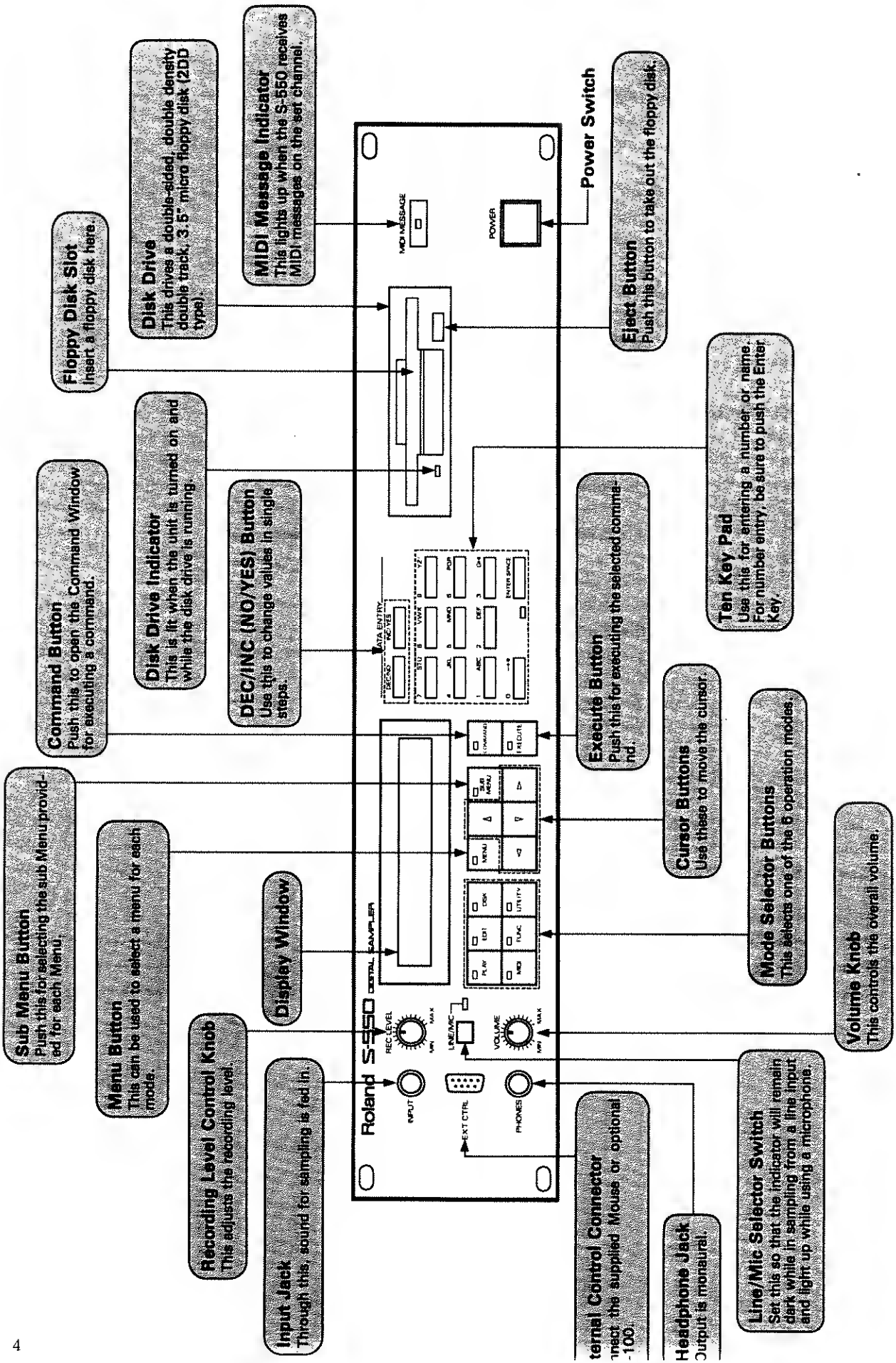
8 Loading Data from a Disk 121
Load — Loading the Entire Deta (Disk Mode) 122
Loed P. PRM — Loading e Patch (Peremeters) (Disk Moda) 126
Loed Tone — Loeding a Tona (Disk Moda) 128
DIR Patch — Directory of Petch Names on a Disk (Disk Mode) 130
OIR Tona — Diractory of Tone Names on a Disk (Disk Moda) 130

9 Saving Data onto a Disk 131
Lebel Set — Setting a Disk Label (Disk Mode) 132
Seve — Seving the Entire Dete (Disk Mode) 133
Seve P. PRM — Seving e Patch (Peramaters) (Disk Mode) 137
Format — Formet Disk (Disk Mode) 139
Backup — Beckup of the Systam disk (Disk Mode) 140
Sava SYS — Seving the System (Disk Mode) 142

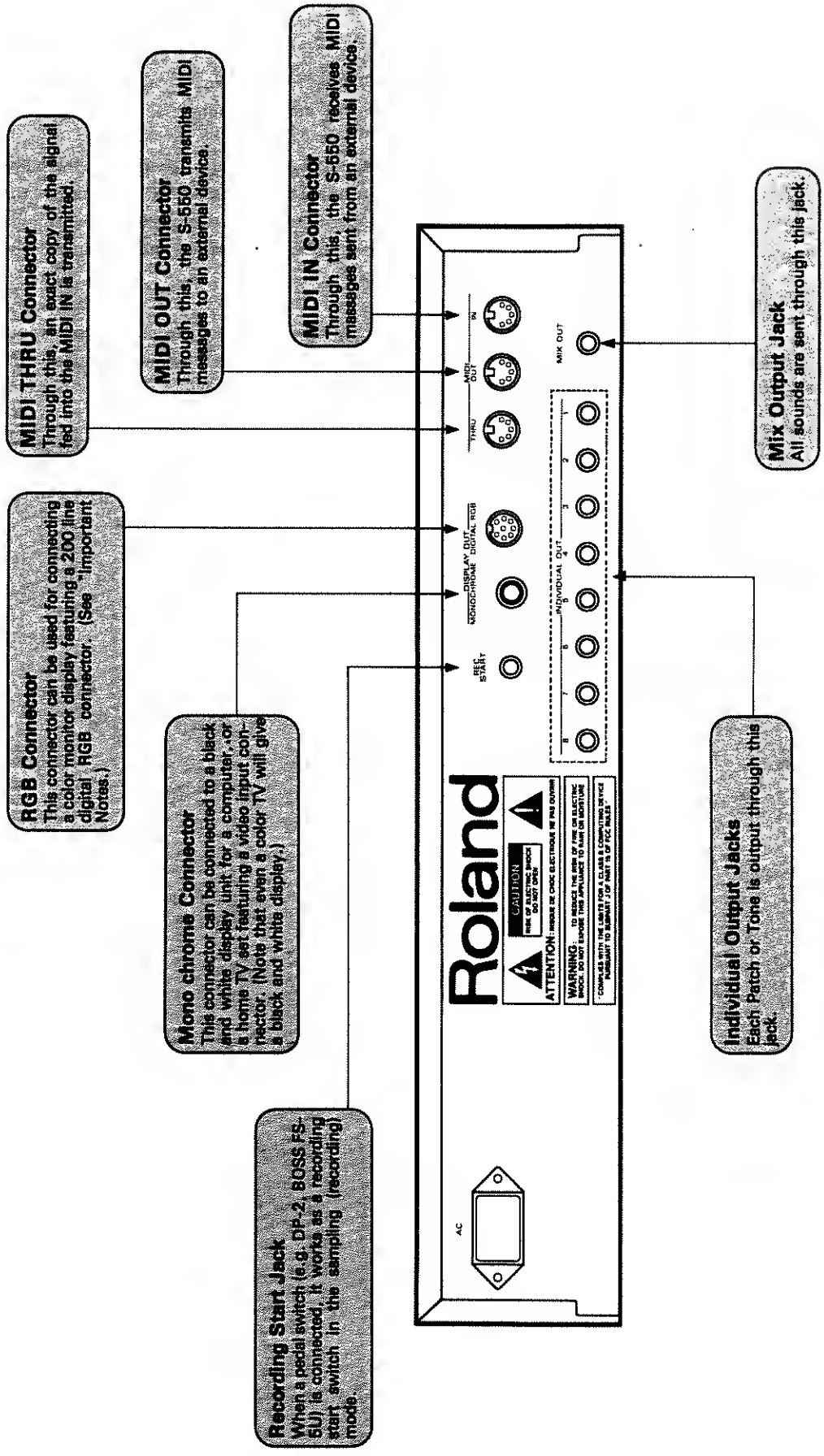
10 Other Usaful Functions 143
Trig. Pley — Audio Trigger Pley (Utility Mode) 144
UTL Backup — Backup of the Utility Disk (Utility Mode) 145
Convart — Converting Dete of the S-50 for the S-550 (Utility Mode) 147
Change SYS — Change Systam (Disk Mode) 149

Error messages 150
MIDI Implementation 151
Index 162
Specifications 164

PANEL DESCRIPTION (Front Panel)



PANEL DESCRIPTION (Rear Panel)



IMPORTANT NOTES

★To operate the S−550, a CRT Display is necessary. CRT Displays compatible with the S−550 are listed and explainad on page 12.

★The S−550 determines the volume by directly controlling the digital data, therefore, the dynamic range is automatically increasad by raising the volume, creating delicate and natural volume alteration. So, it may be a good idea to sat the volume on the S−550 as high as possible and adjust tha volume on a mixar or amplifier.

★The S−550 is fully controllad by a computer system, therefore, like any computer controlling unit, it may get into trouble suddenly. If so, switch the unit off, and swtich it on again.

★The S−550 is 16 voice polyphonic. This, however, may be decreasad depending on tha conditions.

< How to handle the S-550 >

- Switching the S-550 off will erase all the data programmed in the S-550. Be sure that the Power switch is not touched accidentally, or the power cord is not disconnected.

- The appropriate power supply for this unit is shown on its name plate. Please make sure that the line voltage in your country meets the requirement.

- Do not use the same socket used for any noise generating device (such as a motor or variable lighting system).

- This unit might not work properly if turned on immediately after being turned off. If this happens, simply turn it off, and turn it on again after waiting a few seconds.

- When turning the S-550 on or off, be sure the disk drive is empty.

- When disconnecting the power cord from the socket, do not pull the cord but hold the plug.

- If this unit is not to be used for a long period of time, be sure to disconnect the power cord from the socket.

- It is normal for this unit to get hot while being operated.

- Avoid using this unit in excessive heat or humidity, or where it may be affected by direct sunlight or dust.

- Place this unit in a steady, horizontal place. If it is inclined upward at more than 10 degrees or downward at more than 20 degrees, the disk drive may not function properly.

- Use a soft cloth, and clean only with a mild detergent.

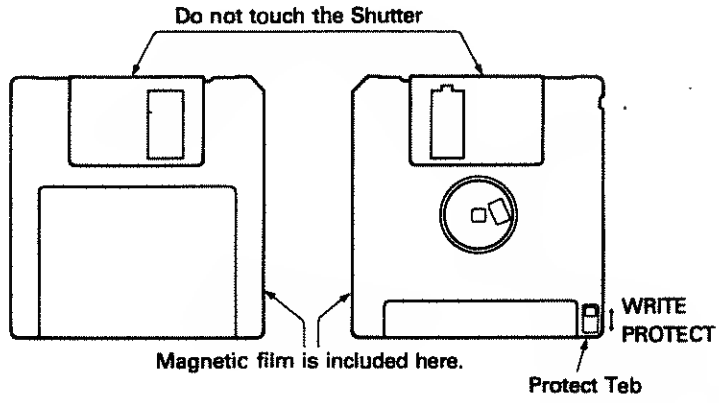
- Do not use solvents such as paint thinner.

- When moving the unit, avoid sudden bumps or shocks.

If this unit happens to fail to function properly, turn it off once, then turn it on again.

< How to handle the Floppy Disks>

Floppy disks are delicate and can bc ruined if not handled properly.



* To prevent accidental loss of data, be sure to set the Protect Teb to the PROTECT position except when writing (recording) data.

- Do not expose the disk to strong magnetic fields such as a TV set or speakers.
- Please do not touch the shutter that covers the magnetic film. The magnetic field can be easily damaged, even by a slight amount of grease.
- Keep the disk away from extremely hot or cold temperatures, direct sunlight or dust.
- To prevent accidental loss of data, bc sure to set the Protect Tab to the PROTECT position, except when writing (recording) data.
- Never remove or insert the disk, or switch the unit off, while the disk is running (the disk drive indicator is alight), or the disk may be permanently damaged. And while the disk drive is running, do not give a strong shock to the unit, or the data may not be properly read from the disk.
- In transit, remove the disk from the disk drive, or the disk and the disk drive may be damaged.

< How to handle the Mouse >

●Avoid using the Mouse where it may be affected by dust. Specially, the ball is easily damaged by water, grease and dust.

●For cleaning, use a soft cloth. Never use solvents such as thinner.

●When the ball needs cleaning, remove the bottom cover as follows, then wipe the ball and inside the Mouse with a soft cloth.(Do not dismantle other parts.)

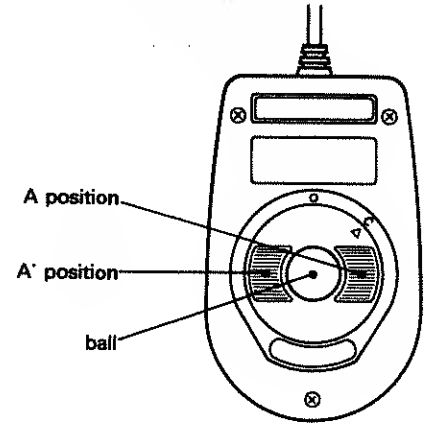
1) **Push your fingers onto the A and A' positions on the bottom cover, then rotete it counterclockwise, matching the ▲ mark to the O position.**

2) **Turn over the Mouse, and remove the ball together with the bottom cover.**

3) **Wipe the ball and replace it.**

4) **Place the cover with the ▲ mark matching the O position.**

5) **Place your fingers onto the A and A' positions on the bottom cover, then rotete it clockwise, matching the ▲ mark to the C position.**



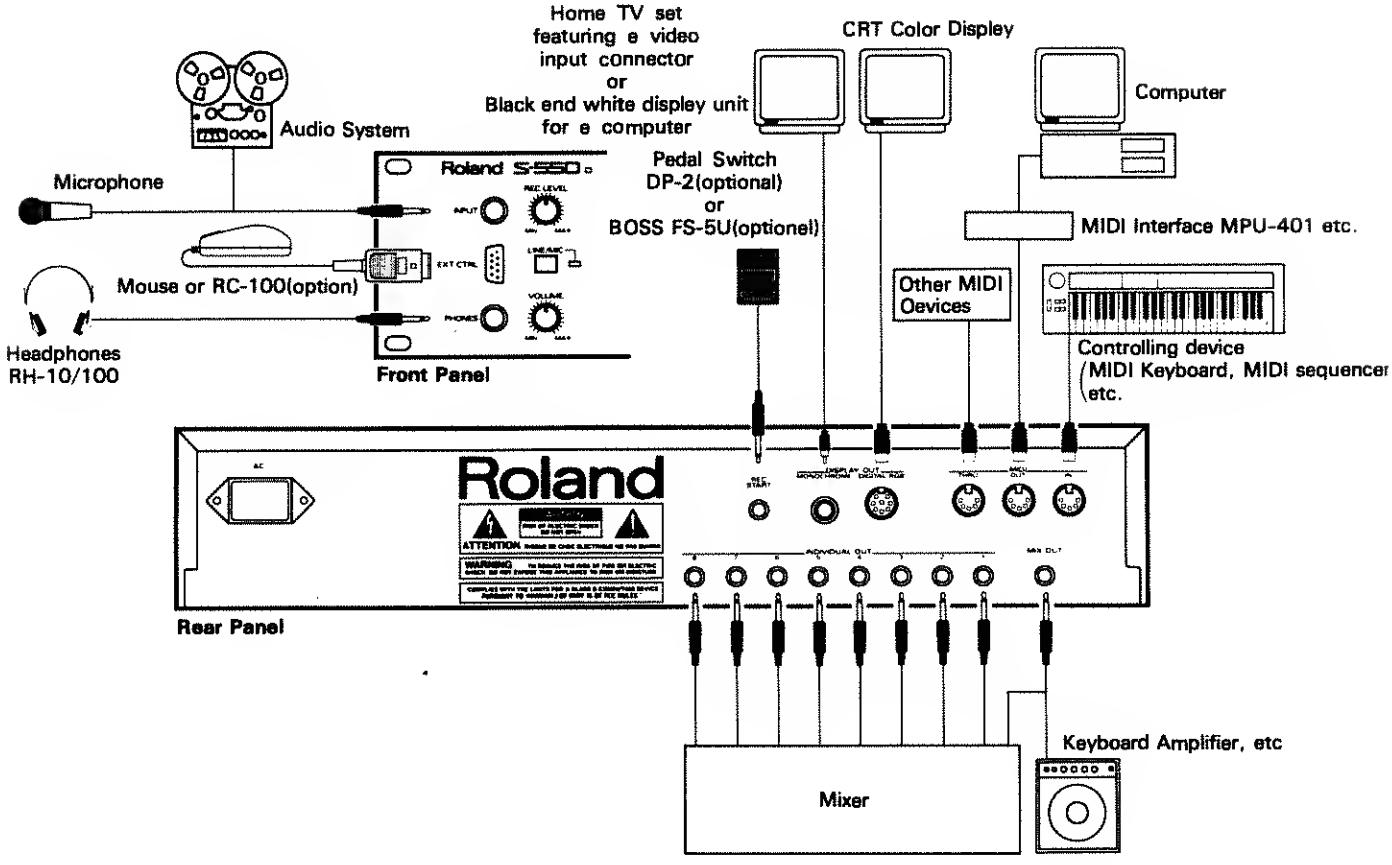
● Use the Mouse on a smooth and horizontal surface.

● Do not drop the Mouse or give it strong shock.

● Do not hold the cord when carrying the Mouse.

CONNECTIONS

Make sure all the units are turned off, then connect as follows.



[Setup with a MIDI Controller]

The S−550 is played by MIDI messages sent from an external MIDI device. Be sure to connect a MIDI keyboard or sequencer.

[Setup with a mixar, kayboard amplifier atc.]

To enjoy the full quality of the S−550, use an amplifier and speakers, that feature wide frequency response and dynamic range, e.g. a keyboard amplifier.

Through the MIX Output Jack (MIX OUT) the total sound of the S−550 is sent out.

The Individual Output Jacks are used for distributing the sound form the eight individual MIDI channels. (See page 30)

[Connecting the Mouse and RC-100]

By connecting the supplied Mouse to the EXT CTRL Connector, nearly all the operations can be performed by the Mouse. The Mouse also allows you to set points of an envelope or draw a waveform.

By connecting the optional remote controller RC-100 to the EXT CTRL Connector, the distant S-550 can be controlled by operating the RC-100. The Mouse can also be connected to the RC-100.

***Connect the Mouse or RC-100 to the EXT CTRL Connector without bending it.**

***Do not connect the EXT CTRL Connector to any other device but the supplied Mouse (MU-1) and the RC-100.**

***The controller (Mouse or RC-100) connected to the S-550 does not work unless the EXT CTRL Control Switch is turned on as shown on page 23 "Power-up and Booting".**

***If you wish to connect or disconnect a controller after the S-550 hes already been booted, you need to change the setting of the Aux Control Switch as shown on page 111 "Selecting the Controller Mode".**

***Before using the RC-100, be sure to push the Reset Switch.**

***The supplied Mouse (MU-1) is designed specifically for the S-550. Do not connect it to any other device.**

***If the RC-100 does not work, push the Reset Switch.**

[Connecting a CRT Display]

For operating the S-550, a CRT Display is essential.

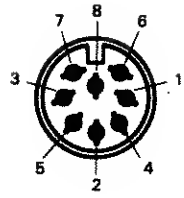
***The Display window on the S-550 is adequate for playing the progremmed data, loading data from a disk, saving data onto a disk, etc.**

To connect a 200 line black and white display for a computer, or a home TV set featuring a video input jack, use the connector for a Monochrome monitor display (MONOCHROME).

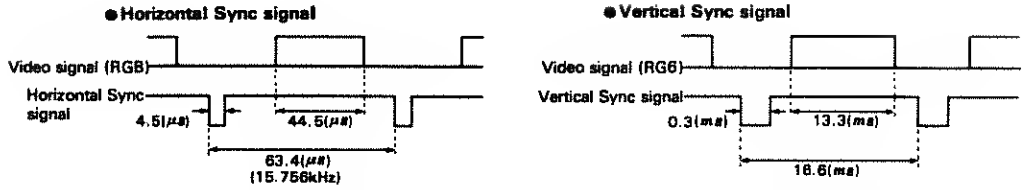
Before connecting a color display to the S-550, please make sure that the monitor's input matches the output of the S-550. If not, do not use the monitor with the S-550. The output of the S-550's RGB Connector matches the TTL RGB 200 lines.

***Do not place a CRT Display on the S-550.**

PIN No	Signal		Spec
1	+5V	+5V power output	
2	GND	Earth	
3		Open	
4	HSYNC	Horizontal Sync signal	TTL level negative
5	VSYNC	Vertical Sync signal	
6	R	Video signal (red)	
7	G	Video signal (green)	TTL level positive
8	B	Video signal (blue)	

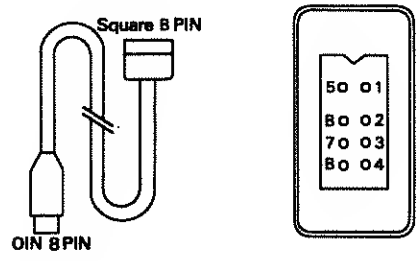


■Timing Chart of RGB Output of the S−550



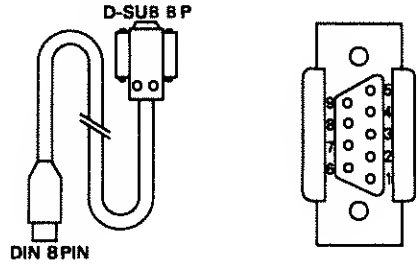
For connecting the S−550 to the monitor display, use the Roland RGB−25N connection cable. Please do not use a cable that has a different number or different positions of the pins. (The impedance of the S−550's RGB output is 100 Ω.)

■RGB−25N (DIN 8PIN Connector ↔ Square 8PIN Connector)



PIN No	Signal	
1	Open	
2	Video signal (red)	TTL level positive
3	Video signal (green)	
4	Video signal (blue)	
5	Earth	
6	Earth	
7	Horizontal Sync signal	TTL level negative
8	Vertical Sync signal	

■RGB−25I (DIN 8PIN Connector ↔ D−SUB 9PIN Connector)



PIN No	Signal	
1	Earth	
2	Earth	
3	Video signal (red)	TTL level positive
4	Video signal (green)	
5	Video signal (blue)	
6	+5V power	
7	Open	
8	Horizontal Sync signal	TTL level positive
9	Vertical Sync signal	

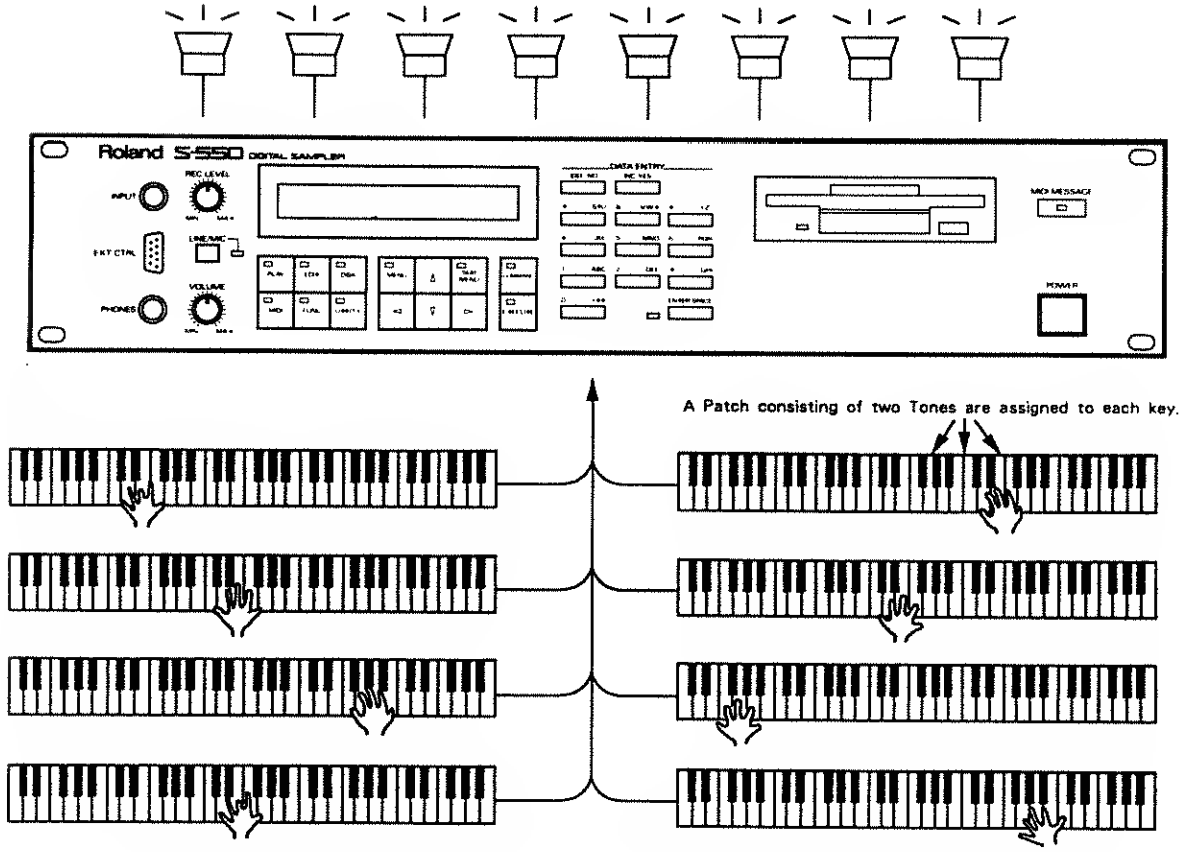
OUTLINE

The S−550 can be played in 16 voice polyphony by MIDI messages sent from the controller connected to the MIDI IN.

The S−550 can have eight receive channels and therefore can receive eight different messages separately and play them.

The S−550 receives 109 key (C0 to C9) Note messages and plays them with any of the 64 Tones. This function can be effectively used for assigning different samples (instrument samples) to different sound ranges, resolving unnatural sounds caused by pitch difference, or for assigning a drum voice or special effect to each key. Each Tone assigned to a key is called a Patch. The S−550 can store up to 32 Patches in the internal memory.

The S−550 can set eight receive channels, therefore, up to eight different Patches can be played simultaneously, allowing you to enjoy orchestration by using only one S−550.



Up to eight different Patches can be played on the individual channels and transmitted from the individuel jacks.

1. The S−550's Six Modes

Using the Mode Selector Buttons, any of the following six modes can be selected.

● PLAY Mode

By switching the unit on then inserting the disk, the unit is automatically turned to the Play mode.

● EDIT Mode

This mode allows you to edit parameters for making a Tone, and assign a Tone to a Note Number.

● UTILITY Mode

To activate this mode, the utility system program should be read from the utility disk. Use this mode for sampling or editing wave data, etc.

● FUNCTION Mode

This mode can select the basic functions of the S−550, e.g. Master Tune.

● MIDI Mode

This mode is for setting the MIDI functions, e.g. MIDI channel, or monitoring the messages received from the external MIDI controller.

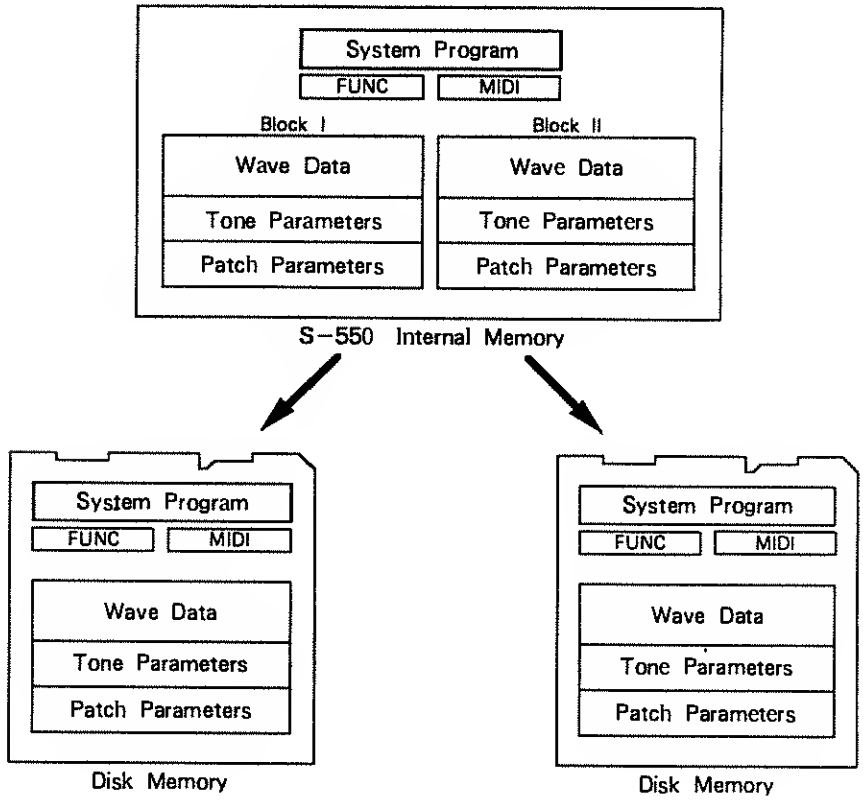
● DISK Mode

This mode is for saving the data in the S−550's memory to a 3.5" floppy disk, or loading the data from the disk to the S−550.

2. Data Programming and Saving

Data programmed on the S−550 consists of Block data (sound data), Function data (for setting functions) and MIDI data (for MIDI settings). All of them can be saved onto a floppy disk or loaded back to the S−550.

Block data programmed in the internal memory can be saved onto two floppy disks, each disk can store one block of data. One block of data (=one floppy disk) is sufficient for controlling the S−550.

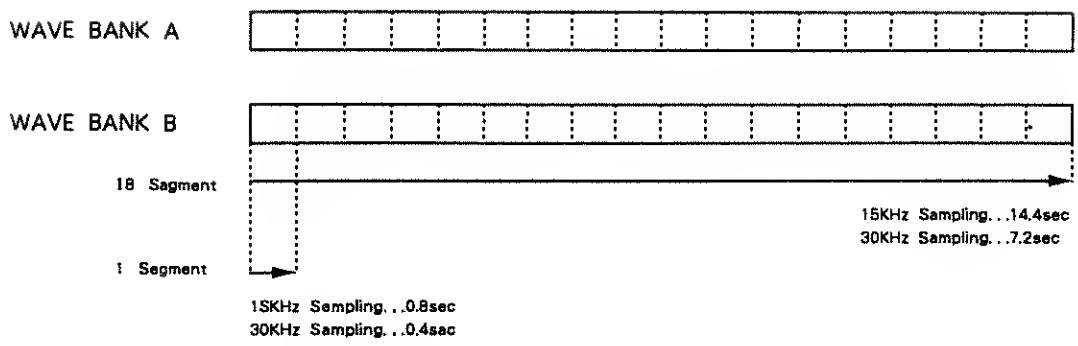


a. Sound Data (Block Data)

The S−550 can process the Sound Data in the Utility or Edit mode. Sound data is programmed for each Block.

1) Wave Data

A sample is stored in a Wave Bank as Wave data. There are two Blocks in the S−550's internal memory. Each Block has two Wave Banks, A and B. These four Banks can store up to 28.8 seconds of Wave data (at 30kHz sampling frequency).

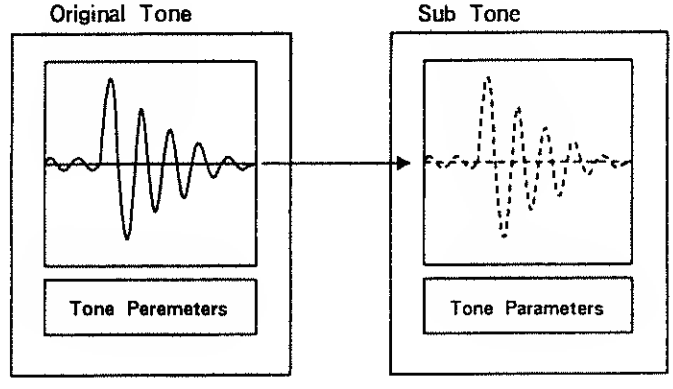


The sampled Wave can be truncated, cutting away un−nceded portions of a wave or two waves can be mixed, or filtered in the Digital Filter, etc. (This is called Wave Data Editing.) The edited wave is also storcd in a Bank.

2) Tone Parameters

The Wave data written in a Bank can be read and reconstructed with a set of Tone Parameters. The combination of a wave and a sct of Tone Parameters creates an original Tone. In other words, an original Tone can be made of an intact sampled wave, or edited wave, plus a sct of Tone Parameters set at values you like.

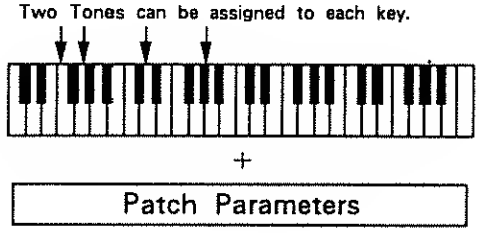
The S−550 allows you to borrow the Wave data from an original Tone and make a different Tone (= Sub Tone) with different values of Tone Parameters.



Thereforc, up to 32 Tones can be programmed in each Block, a total of 64 Tones in the cntire memory.

3) Patches

Any two of the 32 Tones can be assigned to a different key. The key assignment of the Tones, and the performance controlling functions (Patch Parameters) are combined, making a Patch. Up to 16 Patches in each Block, a total of 32 Patches can be programmed in the S−550.



b. Function Data and MIDI Data

The function parameters set in the Play or Func mode are written in memory as Function data. MIDI functions (MIDI receive functions) are written as MIDI data.

The S−550's internal memory can store one set of Function data and MIDI data.

c. Data Saving

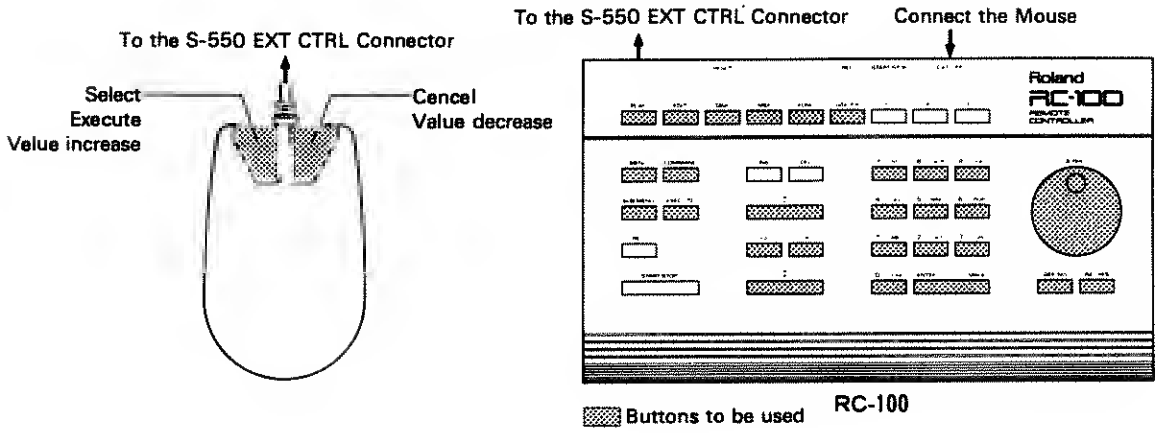
The data programmed on the S−550 can be written in the internal memory. Data in memory, however, will be erased when the unit is turned off. To retain the data even after the unit is switched off, save it onto a floppy disk.

A brand new disk or a disk used for other than the S−550 cannot be used for saving the data in the S−550, unless it is formatted (see page 139 "Formatting"). Using the Backup function, a disk is automatically formatted then each Block of data is saved onto a floppy disk separately.

3. Basic Procedure

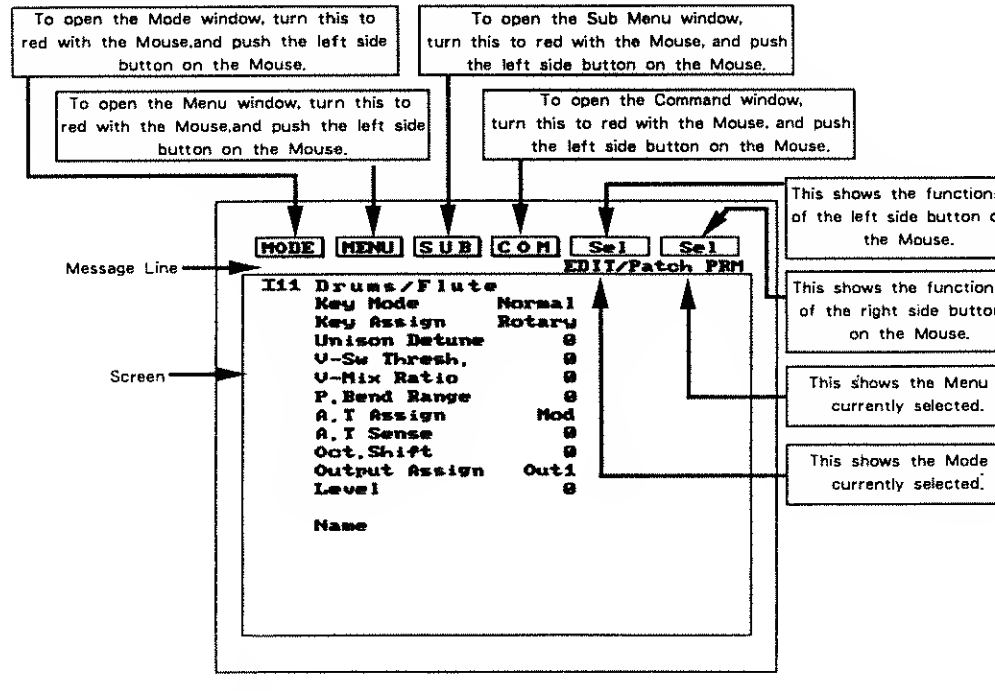
Using the supplied Mouse, you can operate the S−550 without hardly touching the buttons on the front panel.

The optional remote controller RC−100 can be used to control the S−550 from a distance.



***When using the RC−100, be sure to push the Reset Switch.**

***Do not connect enything but the Mouse (MU−1) supplied with the S−550 to the EXT CTRL connecter on the RC−100.**



● Mode Selection

Select one of the six operation modes. The selected mode is shown at the right corner on the Message Line, and also can be recognized by the indicator of the Mode Button.

Panal or RC-100

Step 1 Push the MODE Button you wish to select.

Mouse

Step 1 Move the Mouse so that MODE is lit in red, then push the button at the left side of the Mouse to open the Mode Window.

Step 2 Move the Mouse to select the mode you like, and push the button at the left side of the Mouse.

(Pushing the button at the right side will return to the previous indication without selecting the mode.)

● Menu Selection

Each mode has various menus. The selected menu is shown at the right corner on the Message Line.

Panal or RC-100

Step 1 Push the MENU Button to open the Menu Window.

Step 2 Using the ▼ and ▲ buttons, select a menu you like, then push EXECUTE.

(Pushing the Menu Button again will return to the previous indication without selecting the menu.)

Mouse

Step 1 Move the Mouse so that MENU lights in red, then push the button at the left side of the Mouse to open the Menu Window.

Step 2 Move the Mouse to select the Menu you like and push the button at the left side of the Mouse.

(Pushing the button et the right side will return to the previous indicetion without selecting the menu.)

● Value Entry

To change the contents of the parameter currently shown in the Display, move the cursor to the parameter to be changed and enter a value.

Penel or the RC-100

Step 1 Move the cursor to the parameter to be edited by using the Cursor Buttons (◀, ▶ ,▼ and ▲).

Step 2 Set the value you like by using the DEC or INC button.(The INC Button increases a number and the DEC button decreeses. Holding the button down quickens the change.)

When a value is set with the Ten Key Pad, the value flashes until ENTER is pushed. Moving the cursor to an other value without pushing ENTER will return the value to the previous one. To enter "−", simply push the "0" button twice.

*When using the RC-100, the value can be change by rotating the Alpha Dial.

Mouse

Step 1 Move the Mouse so that the Mouse cursor goes to the parameter to be edited.

Step 2 Pushing the button at the left decreases a number and the button at the right increases a number. Holding the button down quickens the changes.

● Sub Menu

Sub Menus are used in the Edit, Utility or Disk mode. You can choose a Patch or Tone watching the list.

Panal or the RC-100

Step 1 Push the SUB MENU Button to open the Sub Menu Window.

(Pushing the SUB MENU Button agein will close the Sub Menu Window.)

Step 2 Using the ▼ and ▲ buttons, select the menu you want (if there is only one menu, skip this), and push EXECUTE to make the Displey show the Petch list or Tone list.

(Pushing the SUB MENU button again will open the Sub Menu Window.)

Step 3 Using the Cursor Buttons (◀,▶,▼ and ▲), select a Petch or Tone you like, then push EXECUTE.

Step 4 Push the SUB MENU button to return to a normal display.

Mouse

Step 1 Move the Mouse so thet SUB will light in red, then push the button at the left side to open the Sub Menu Window.

(Pushing the button at the right side will close the Sub Menu Window.)

Step 2 By moving the Mouse, select a menu you want (if there is only one menu, skip this), and push the button located at the left side to make the Display show the Patch list or Tone list.

(Pushing the button at the right side will open the Sub Menu Window.)

Step 3 By moving the Mouse, select a Patch or Tone you like, then push the button at the left.

Step 4 Push the button at the right, and the Menu Window will close and the Display will return to the normal indication.

● Executing a Command

To execute a command, such as sampling, wave processing, data saving or loading, you should open the Command Window.

Penel or RC-100

Step 1 Push the COMMAND button to open the Command Window.

(Pushing COMMAND again will close the Command Window.)

Step 2 Using the ▼ and ▲ buttons, select a command you like (if there is only one command, skip this), and push the EXECUTE button to execute the command.

Mouse

Step 1 Move the Mouse so that COM is lit in red, then push the button located at the left side to open the Command Window.

(Pushing the button at the right side will return to the previous Display.)

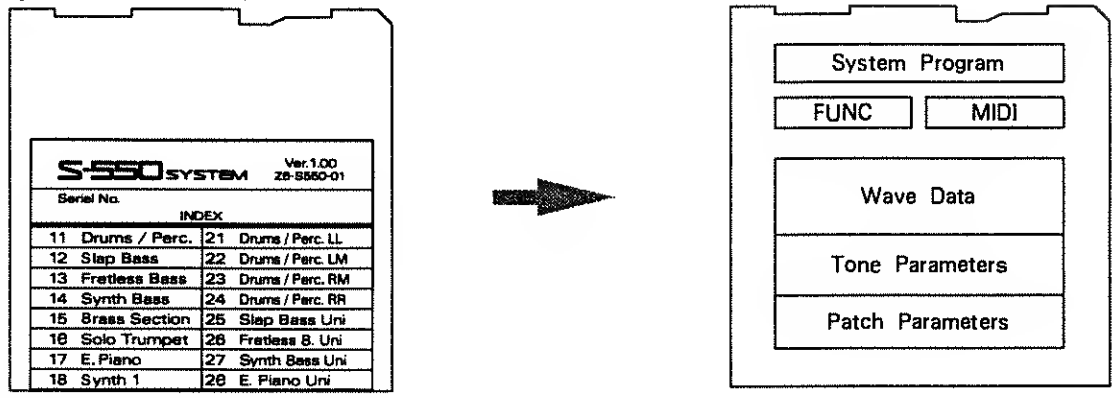
Step 2 Using the Mouse, select a command you like (if there is only one command, skip this), then push the button at the left to execute the command.

PREPARATION FOR PLAYING

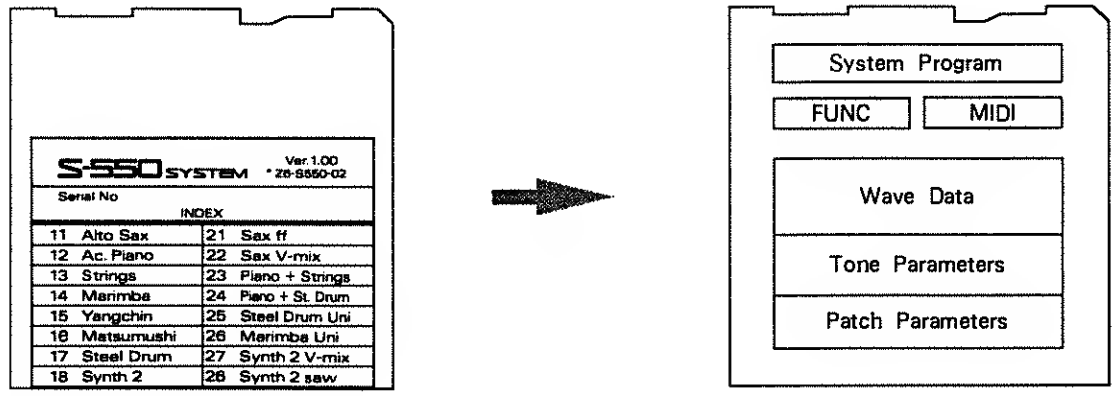
1. Checking the Supplied Three Disks

The following three disks are provided with the S−550.
Two System Disks
One Utility System Disk

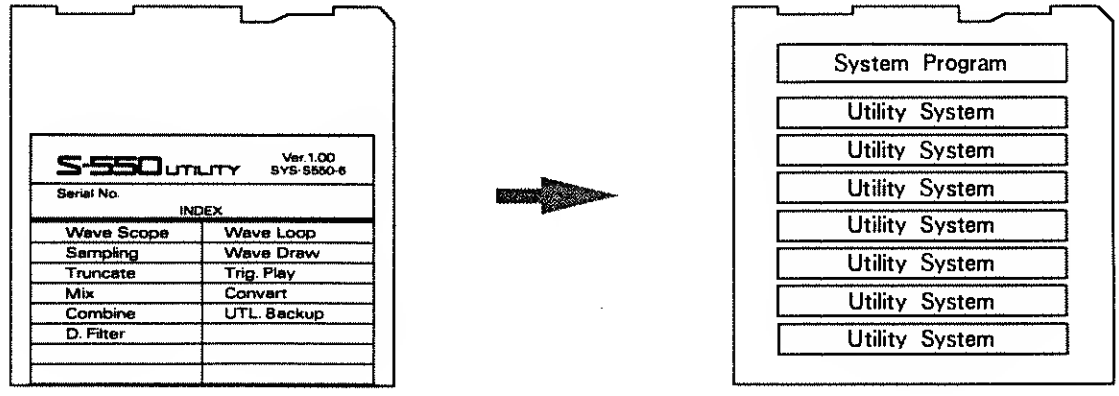
System Disk [1]



System Disk [2]



Utility Disk



These two System Disks contain the basic system program and the S−550's sound libraries, Block data, Function Data and MIDI data.
The Utility System Disk contains the system programs necessary for sampling and editing wave data, etc.

2. Power—up and Booting

The S—550 cannot be played immediately after being turned on. The program on a supplied system disk should be transferred to the S—550 to operate it as a sampler module. This procedure is called Booting. For booting, either of the supplied System Disks can be used, but here, let's boot with the Disk I. After reading the program from the system disk, the S—550 continues to read the Sound Data stored on the same disk (automatically into Block I).

Before switching the S—550 on, check if :

(1) the S—550 is properly set up with the other units

(2) nothing is inserted in the Disk Drive.

Step 1 Turn the S—550 on es outlined below.

To use the supplied Mouse or the optional RC—100, turn the S—550 on while taking the following procedure, and the AUX Control Switch is automatically turned on.

To use the supplied Mouse :

Turn the S—550 on whlle holding the Ten Key 2 down.

To use the optionel RC—100 :

Turn the S—550 on while holding the Ten Key 3 down.

***Before using tha RC—100, be sure to push the Reset Switch.**

To operate the S—550 without connecting the Mouse or RC—100 :

Turn the S—550 on while holding the Ten Key 1 down.

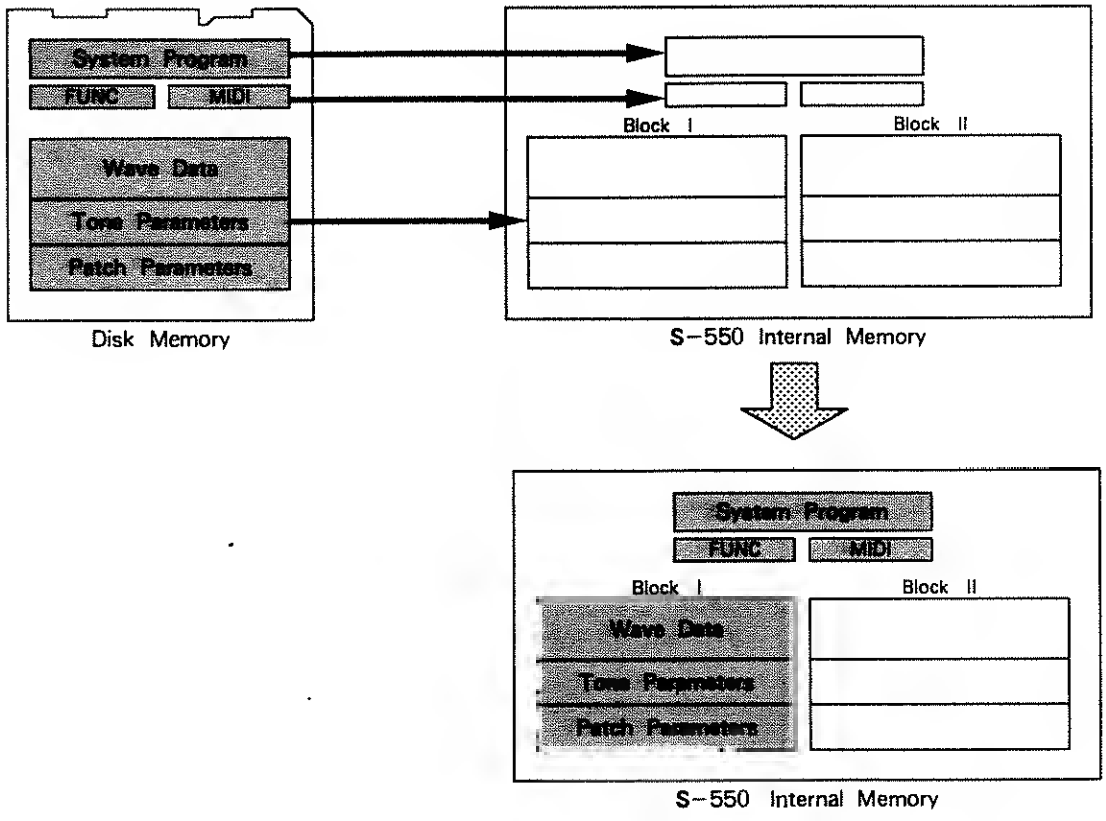
***If you turn the S—550 on without holding any Ten Key down, the status written on the disk is given priority. The supplied system disk will default to "Mouse".**

NOTE : **When the "RC—100" or "Mouse" mode is selected but the RC—100 or the Mouse is not connected to the S—550, the buttons on the S—550's panel do not work properly.**

Now, the Display shows **"Pleese Insert System Disk"**, and the Disk Drive Indicator lights up.

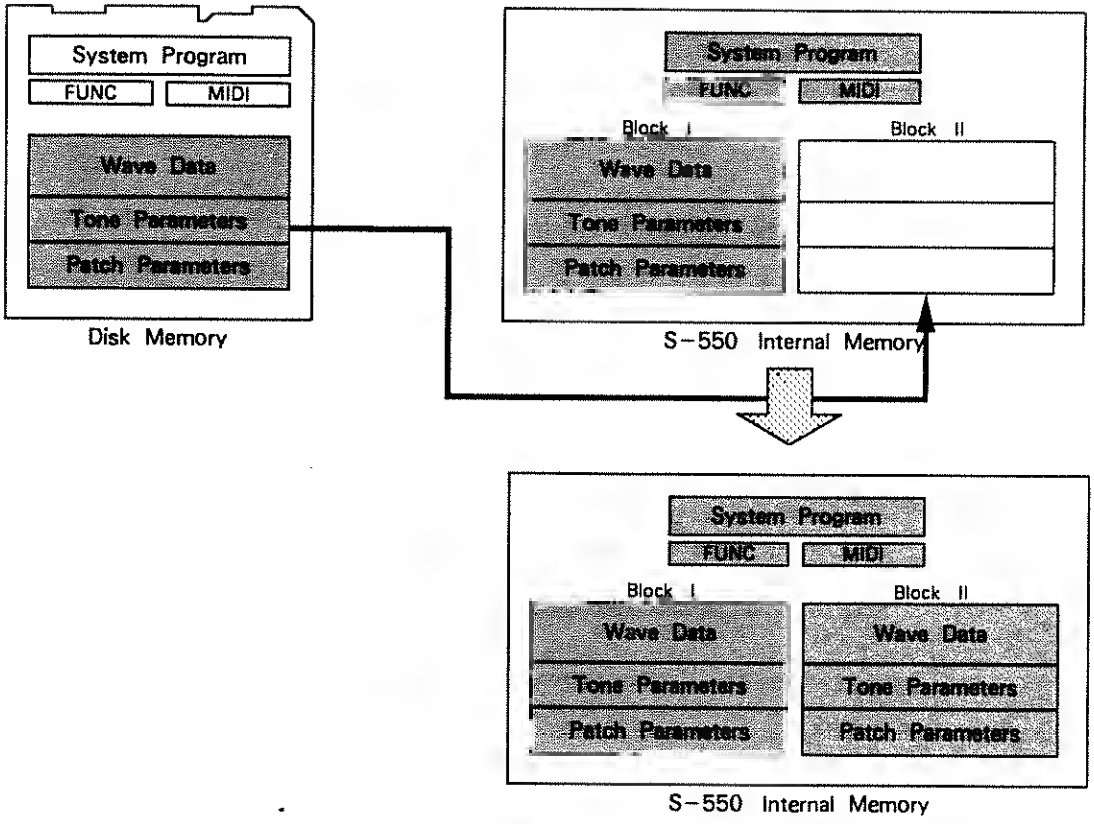
Step 2 **Insert Disk I into the Disk Drive until it clicks.**

The system program is loaded first, then the sound data. When the number in the Display counts down to 00, loading is completed, then **"Next disk Pleese?"** appears in the Display.



Now, the Disk I data is loaded in the S-550's memory as shown above. You may leave Block II empty and play only the Block I data. If, however, you load data into Block II, 64 Tones and 32 Patches can be played.

Now, let's load data into Black II.



Step 3 **Push the Eject Button end take out the Disk I, then insert Disk II.**

The number counts down to 00, and loading is completed, automatically returning to the Play mode.

If you push the NO button instead of YES, the unit is returned to the Play mode without loading data into Block II.

***Do not take out the floppy disk or switch the unit off from the moment the disk is inserted until the loading is compieted.**

3. Back—up of the Disks

Floppy disks will become erased naturally after a certain length of time. To avoid the loss of important data, make it a rule to make a few back—up disks. The S—550's Backup function allows you to load the entire data on a disk.

Please use a 2—DD type floppy disk (3.5" double sided, double density, double track micro floppy disk) such as a Roland MF2—DD.

Back—up of the System Disks

Step 1 **Teke out the system disk from the Disk Drive, set the Protect Teb on the floppy disk for beckup to the WRITE position, end insert in the Disk Drive.**

Step 2 **Push the DISK button.**

Step 3 **Push the MENU button.**

Step 4 **Using the Cursor Buttons, select "Backup", end push the EXECUTE button.**

Step 5 **Push the CDMMAND button, then EXECUTE button to stert the procedure.**

The Display shows "**Formatting**", then "**Now Seving**", and finally "**Complete**". Now, the Disk I's backup is prepared.

Step 6 **Push tha Eject Button to teke out the floppy disk from the Disk Drive, end set the Protect Teb to the PRDTECT position.**

Power off, then boot up with Disk 2. And create the backup of the Disk 2 same as Disk 1.

the Disk II's backup is prepared.

Back—up of the Utility Disk

The entire data on the Utility disk can be copied to make a backup.

***The Utility Backup will erase any date stored in the internel memory of the S—550. If you wish to ratain the dete, seve it onto a disk before doing the Utility Backup.**

Step 1 **Insert the Utility diak into the Diak Drive.**

Step 2 **Puah the UTILITY button.**

Step 3 **Push the MENU button.**

Wait a few minutaa to open the Menu Window.

Step 4 **Using the Cursor Buttons, aelect "UTIL Beckup", and push the EXECUTE button.**

Step 5 **Push tha COMMAND button, then EXECUTE button to start the procedure.**

The Display shows **"Now Loading"**, then the number counts down to 0, and finaly **"Chenge Disk"** is displayed.

Step 6 **Push the Eject Button to teke out the floppy disk from the Disk Drive, and set the Protect Teb to the WRITE position, then insert it into the Diak Drive.**

The Display shows **"Formatting"**, then **"Now Saving"**, and the number counts down to 0

Step 7 **Push the Eject Button to teke out the floppy disk from the Disk Drive, and set the Protect Tab to the PROTECT position.**

***If the supplied sysytam disk happen to be erased or dameged, consult your local Roland service center.**

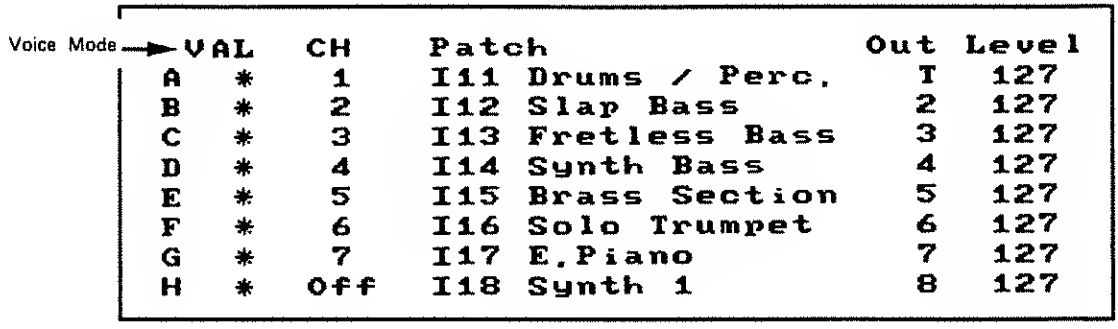
1 Playing

When the S-550 is booted, it is automatically turned to the Play mode that plays Patches by MIDI messages sent from an external device.

The S-550 can simultaneously play eight different Patches by eight individual MIDI channels. You can use Patches in Blocks I and II.

[Voice Mode]

The S-550 is 16 voice polyphonic. (This may be decreased depending on the conditions.) You can select one of the following Voice Modes that determine how these 16 voices are played.



[VAL] (Last Note Priority Auto Mode)

When the VAL mode is selected, **"Last Note Priority"** is shown on the Message Line. You can set as many as eight receive channels and assign Patches to these channels. Patches are played by Note messages received on the relevant channels. If the received Note messages exceed 16 voices, the older sounds are sacrificed.

Note : **The S-550 allows you to set the Receive Channels for Voice Groups A to H to the same channel number (s). This however, will cause slight delays in starting the sounds, in particular, when the voice mode=VAL (Last Note Priority Auto mode).**

[VAF] (First Note Priority Auto Mode)

Voice Mode	AUTO
A	*
B	*
C	*
D	*
E	*
F	*
G	*
H	*

When the VAF mode is selected, **"First Note Priority"** is shown on the Message Line. You can set as many as eight receive channels and assign Patches to these channels. Patches are played by Note messages received on the relevant channels. If the received Note messages exceed 16 voices, the later messages are ignored.

[V 1] to [V22] (Voice Fixed Mode)

This mode divides 16 voices into up to 8 voice groups as shown below. You can set a receive channel for each group and assign a Patch to each channel. If the received Note messages excced the maximum number of voices which can sound, the later sounds are sacrificed.

Voice Mode	1	2	3	4	5	6	7	8	9	10	11
A	16	14	12	12	10	10	10	8	8	8	8
B	0	2	4	2	6	4	2	8	6	4	4
C	0	0	0	2	0	2	2	0	2	4	2
D	0	0	0	0	0	0	2	0	0	0	2
E	0	0	0	0	0	0	0	0	0	0	0
F	0	0	0	0	0	0	0	0	0	0	0
G	0	0	0	0	0	0	0	0	0	0	0
H	0	0	0	0	0	0	0	0	0	0	0

Voice Mode	12	13	14	15	16	17	18	19	20	21	22
A	8	6	6	6	6	6	4	4	4	4	2
B	2	6	6	4	4	2	4	4	4	2	2
C	2	4	2	4	2	2	4	4	2	2	2
D	2	0	2	2	2	2	4	2	2	2	2
E	2	0	0	0	2	2	0	2	2	2	2
F	0	0	0	0	0	2	0	0	2	2	2
G	0	0	0	0	0	0	0	0	0	2	2
H	0	0	0	0	0	0	0	0	0	0	2

[Other Parameters]

CH (Receive Channel)

This is the receive channel of each voice group. When it is set to Off, no MIDI message is received, therefore no sound is generated. To minimize the delays, turn off the voice groups which are not in use.

When editing a Tone or Patch, set the transmit channel of the connected MIDI device to the same as the receive channel of voice group A. In this way, you can hear the sound of the Patch or Tone being edited.

Patch (Patch played by a Voica Group)

This is the Patch played by each voice group. You can use any Patch in Block I or II.

***You cen select e Petch you like by using Progrem Chenge messeges sent from en externel MIDI device. To do this, set the Receive Switch [P.Chg] to "On" in [Message] menu of the MIDI mode. How the Progrem Change numbers correspond to the Petch numbers cen be checked and chenged, if you like, with [Prog #] of MIDI mode.**

Out (Output Jack assinged to a Patch)

This shows the output jack assigned to a Patch. When [T] is shown, a Tone is sent out from each output. (See page 103)

Lavel (Volume of a Voica Group)

This sets the volume of the voice group.

***You cen chenge this peremeter with the volume messeges sent from en externel MIDI device. To do so, set the receive switch [Vol] to "On" with [Messege] menu in the MIDI mode.**

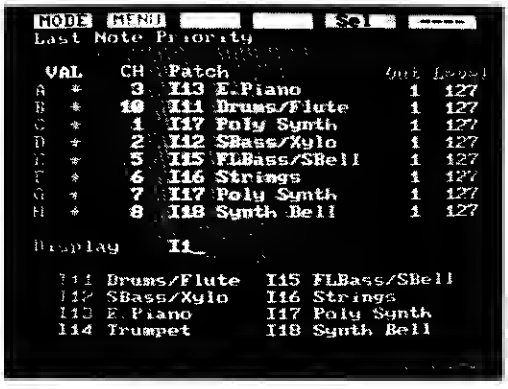
***There ere some more peremeters releted to volume control. The volume of eech key is determined by the following six perameters.**

1. **Position of the Volume Knob**
2. **Voice group level set here (Received MIDI Volume)**
3. **Level of the Petch essigned to the voice group (see pege 103)**
4. **Level of the Tone essigned in the Petch (see pege 73)**
5. **TVA Envelope level of the Tone essigned in the Petch (see pege 93)**
6. **Strength of keyboerd pleying (see pege 94 "Level Curve")**

All volume controlling is done by directly effecting digital data, therefora raising the volume automatically wldens the dynamic range, ellowing delicete and realletic volume changes. Set the output volume of the S—550 as high as poseible and adjust it on the mlxer or amplifer.

Standard

This is the display currently called. In this display, the sound source works faster.

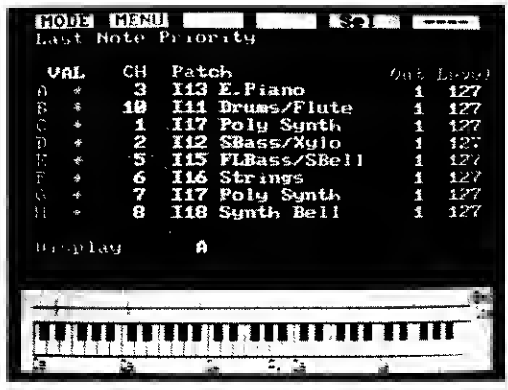


Display [I1_]、 [I2_]、[II1_]、[II2_]

[I1_] : **Patch numbars I 11 to I 18**
[I2_] : **Patch numbars I 21 to I 28**
[II1_] : **Patch numbers II 11 to II 18**
[II2_] : **Patch numbars II 21 to II 28**

Split Disp

Open the Menu Window then select [Split Disp].



Displey **[A] to [H] end [ALL]**

The messages of the voice group selected by [Display] are shown on the 61 key keyboard at the bottom of the Display.

○The split point of the 1st and 2nd Tones in the Patch assigned to this voice group.

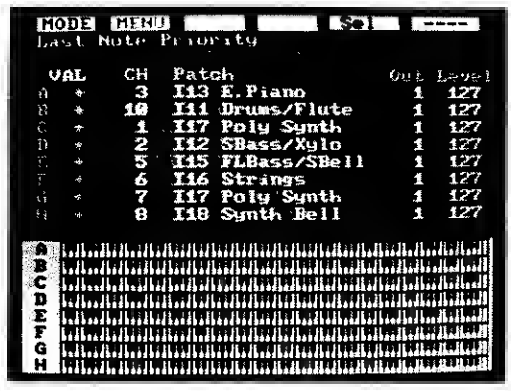
○When this voice group is played by receiving Note messages, a mark appears at the relevant key.

＊The S−550 cen receive Note messsages of 109 keys, C0 to C9, and play them. When the Note messages exceed the 61 keys, en arrow appeers at the left end／or right side.

＊When [ALL] is selected, any voice group note is indicated on the keyboerd, end the marks of the split points disappear.

8 Key Disp

Open the Menu Window end select [8 Key Disp].



At the lower part of the Display, eight 109 key keyboards (that can cover all Note numbers received by the S−550) are shown.

When note messages are received and played by each voice group, the relevant keys will flash.

2 Sampling

There are two menus provided for sampling.

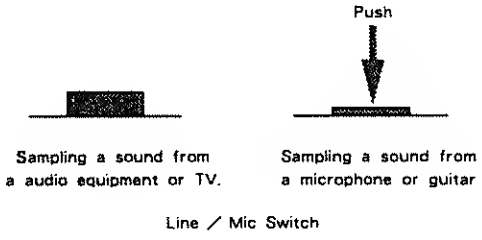
Wava Scope (Weva scope of Input Signal) **(See page 35)**

Sampling **(See pege 36)**

[Setup for Sampling]

Connect the output of the microphone, or audio equipment, etc, to the Input Jack of the S−550.

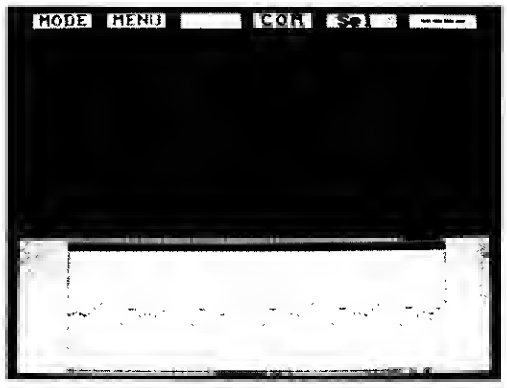
To sample a sound from a microphone or a guitar, push the LINE/MIC Switch on the front panel and light up thc indicator, and to sample from audio equipment or a TV, push it again so that the indicator will go out.



Connect a pedal switch (e.g. an optional DP−2) to the Rec Start Jack, to start sampling by pushing thc pedal.

Wave Scope

In this menu, the input signal can be shown as a waveform.



Preparation 1 **Insert the Utility Disk into tha Disk Drive.**

Preparation 2 **Push the UTILITY button or open the Mode Menu and select UTIL, to cell the UTILITY mode.**

Praparation 3 **Open the Menu Window and salact [Wava Scope], end the Commend Window will open.**

Push EXECUTE or the left side button on the Mouse. The Display shows **"START"** and the S−S50 is ready for signal input.

A moving wave appears when a voice signal is fed.

Pushing the EXECUTE or the left side button on the Mouse will first show **"STOP"**, then stop the movement and show a stationary waveform.

If you wish to see the moving wave again, push the EXECUTE or the left side button on the Mouse.

* You can enter another mode or menu only from the "STOP" condition.

Sampling

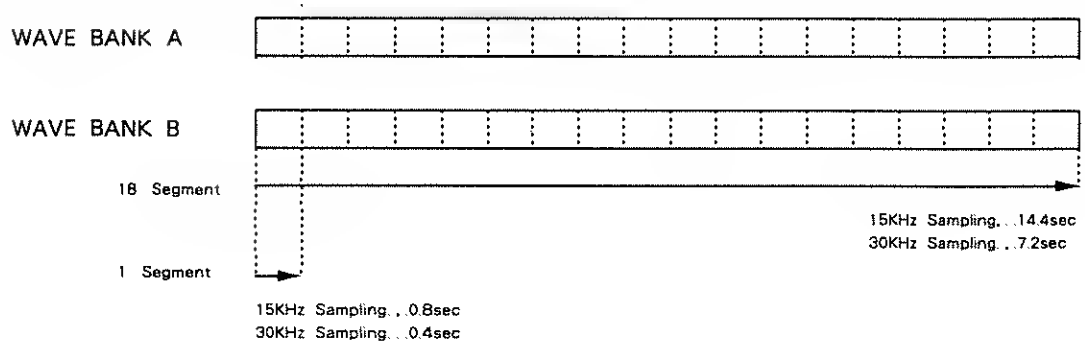
Preperetion 1 **Insert the Utility Disk into the Disk Drive.**

Preperation 2 **Push the UTILITY button, or open the Mode Menu to select UTIL, to cell the UTILITY mode.**

Preparation 3 **Open the Menu Window end select [Sempling].**

The S−550 can record sound into computer memory. A computer can accept information only as digital signals, so the S−550 converts audio signals into digital . It does this by examining (sampling) the incoming signal level a great many times a second, and sequentially recording these different levels in computer memory. This digital recording process is called SAMPLING.

The S−550 has two Blocks, I and II, and each Block has two Wave Banks, A and B where the samples are stored. Each wave bank can sample up to 7.2 seconds at 30kHz sampling and 14.4 seconds at 15kHz. A wave bank is divided into 18 segments, which are 0.4 seconds long at 30kHz sampling, and 0.8 seconds at 15kHz sampling.



[Selecting a Destination Tone Number for Writing a sample]

Source

You can select a Tone Numbcr where the sample is to bc written. Any of the 64 Tone Numbers can be selected.

When a Sub Tonc is selected as a new location, it will become an Original Tone and the Tone Parametcrs are initialized.

When an Original Tone is sclected as a new location, the following will happen.

○The Wave data that is contained in the selectad Tone is arasad (it is erased when the Command Window is open bafora actually sampling), making an empty space (incraasing the Remaining Time).

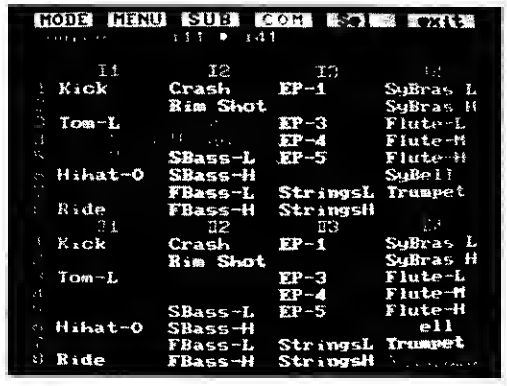
○The new Wave data semplad takes the empty space.

○Tone paramaters are initialized.

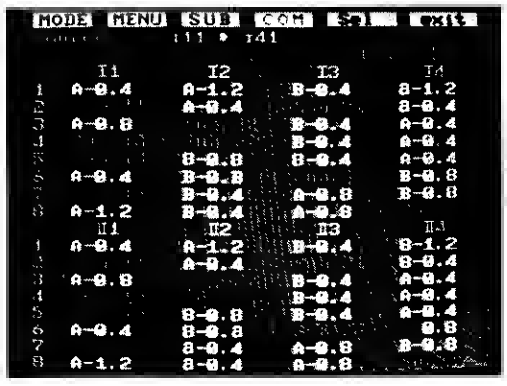
○A Sub Tone that uses tha arasad Wave data is dalatad, becoming an unusad Tone.

[Tone List Display]

Opening thc Sub Menu will call the Tone List. This display will help you in selecting a [Source] Tonc Number.



The name of an Original Tone is displayad in white, and a SubTone in red.



To change to the display that shows the contants of the Weve data of a Tone, move the cursor to [N/T] at tha rigt corner of tha Display, then push the EXECUTE button or the laft side button on the Mouse.

A-0.8	Original Tone	Wave Bank : A, Sampling Time : 0.8 seconds (30kHz sampling)
A-0.8x2	Original Tone	Wave Bank : A, Sampling Time : 0.8 seconds x 2 (15kHz sampling)
Sub 11	Sub Tone	This borrows Wave data from Original Tone 11
Sub --	Deleted Tone	A deleted Tone or a Sub Tone that does not borrow Wave data

Wave Bank [A/B]

This selects the Wave Bank A or B where the sample is to be written.

[Checking sampling space]

When there is no space left for sampling in the destination Wave Bank, "Not Execute" is shown when you try to execute, and sampling cannot be executed.

When the remaining space is insufficient for sampling, the Wave data will be cut.

*** The remaining time of eech Weva Bank is shown in seconds et e 30kHz sempling frequency. When sempling in 15kHz, multiply it by 2.**

*** If there is not enough space, you should delete some un-needed deta to increase the remeining time. You mey either delete e Tone with [DELETE] in the EDIT mode, or cut off un-needed portions of e weve with [TRUNCATE] in the Utility mode.**

[Checking Input Level]

As you feed an audio signal, set the level as high as possible without causing the Display to show "OVER", using the Recording Level Knob on the front panel.

The audio signal fed into the S−550 is sent through the Mix Output Jack, and therefore can be monitored through the connected amplifer.

***When sampling from a microphone, you may hear a howling noise. If so, turn down the volume of the amplifier and monitor through headphones.**

[Setting Parameters for Sampling]

Frequency (Sampling Frequency)

This selects the sampling frequency.

[30] This records a sound with 30kHz sampling frequency.

[15] This records a sound with 15kHz sampling frequency.

Time (Sampling Time)

This sets the sampling time (0.4 sec steps). You can select up to the maximum sampling time. When 15kHz sampling frequency is selected, please multiply the sampling time by 2.

If the maximum sampling time is longer than that of the sample, select a longer sampling time, so that sampling can be more successful. You can truncate the wave later in the Utility mode [TRUNCATE].

Orig. Key (Original Key) **[C0] to [C9]**

The Original Key represents the key at which the original sample was played.
When sampling from a musical instrument, you may have to set a Key number that matches the pitch of the sampled sound. Middle C is shown as the C4 key, and a semi−tone as #.

A Key number can be entered by assigning the corresponding MIDI Note number with the Ten Key Pad. C4=Note number 60.

***The highest pitch which can be played on the S−550 is 2 octaves above the sampled sound. Higher pitches cannot be played.**

Threshold (Sempling Threshold) **[0] to [127]**

AUTO sampling starts the moment a signal of a certain level (=threshold level) is fed in. When the threshold level is set to zero, sampling does not start until sampling is exeeuted.

Pre-Trigger

Pre-trigger allows you to record the Wave data even before it exceeds the threshold level (before the sampling is exeeuted when the threshold level is set to zero.) In the other words, this function begins sampling a little earlier, and therfore, saves the beginning of the sample from being eut off.

[10ms]

About 0.01 of a second before the Wave data reaches the threshold level, sampling starts.

[50ms]

About 0.05 of a second before the Wave data reaches the threshold level, sampling starts.

[100ms]

About 0.1 of a second before the Wave data reaches the threshold level, sampling starts.

[0ms]

The moment the Wave data reaches the threshold level, sampling starts.

***When the sampling frequency 15kHz is selected, the Pre-trigger time is elweys shown with x2.**

Limiter **[On/Off]**

When the volume of the sound to be sampled is too high, noise or distortion will be caused. To resolve this, set the Limiter to [On].

[Executing Sampling]

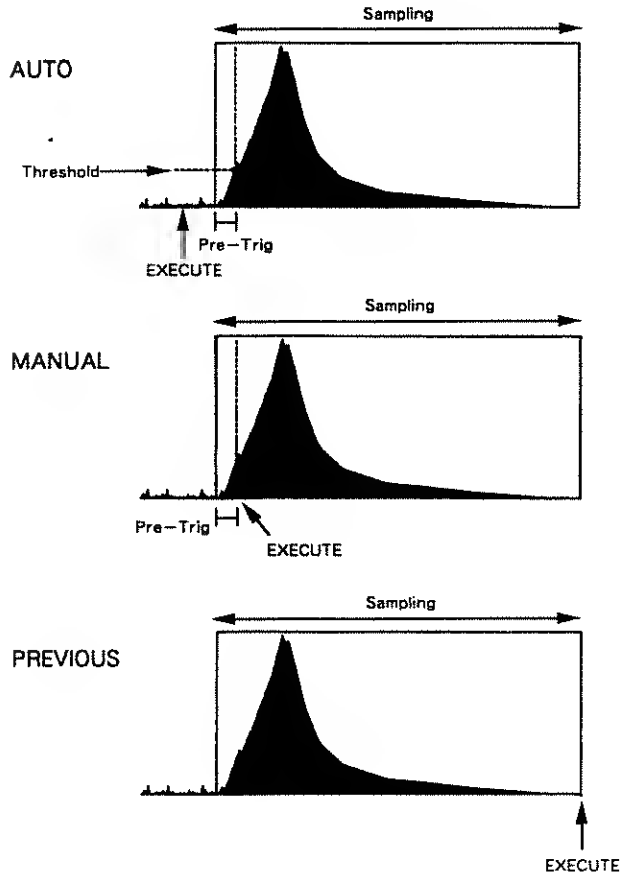
Here, check and see the Display to make sure that you have proceeded correctly so far. Then open a Command Window.

When an Original Tone is selected as a [source] Tone Number, opening the Command Window will erase the previous Wave data, adding the emptied space to the Remaining time, the Display responding with "**Working**". This, however, does not apply to sampling which is done without changing the Tone number, Wave Bank or Time.

When "READY" is shown at the Message Line, sampling can be executed.

***The moment "READY" appears, the internal memory starts recording the signal being fed for Pre-trigger or Previous Sampling.**

Three Methods for Sampling



AUTO (Auto Sempling)

Auto sampling can retain the sample (Wave data) from a certain time (Pre-trigger time) before the signal fed into the S-550 actually exceeds the threshold level.

Step 1 **Push the EXECUTE button or the left side button on the Mouse (or the pedel switch connected to the Rec Stert Jeck on the reer penel).**

The Display shows "Wait Trigger" until a signal exceeding the threshold level is fed in.

Step 2 **Feed the sound to be sempled. When the level exceeds the threshold level, the Displey changes to "Stert".**

When the S-550 has sampled as long as the set sampling time, it automatically stops sampling.

To stop sampling in the middle, push EXECUTE on the S-550. Cancelling sampling, however, does not shorten the sampling time.

MANUAL (Menuel Sempling)

Manual sampling can retain the sample (Wave data) from the moment the EXECUTE button is pressed. The total sampling time is kept unchanged.

Step 1 **Push the EXECUTE button or the left side button on the Mouse (or push the pedel switch connected to the Rec Stert Jeck on the reer penel), end feed the signel to be sempled simulteneously.**

"Start" is shown at the Message Line.

When the S-550 has sampled as long as the set sampling time, it automatically stops sampling. The threshold level has nothing to do with Manual Sampling, and is therefore ignored.

To stop sampling in the middle, push EXECUTE on the S-550. Cancelling sampling, however, does not shorten the sampling time.

PREVIOUS (Previous Sampling)

Previous Sampling retains the Wave data for the set sampling time, that occurs before Step 1 is done. NOTE: The S−550 continuously examines the incoming data stream, and is always sampling. This is very useful for monitoring what you want to sample, and then sample after the fact. (e.g. monitoring a television show and sampling what you have heard.)

Procedure **When the aignal to be sampled is fed into the S−550, push the EXECUTE button or tha left side button on the Mouse (or the pedal switch connected to tha Rec Start Jack on the rear panel).**

After a sound is sampled, the Display shows "Working" for a while. The sampled sound cannot be played while "Working" is being shown.

[Monitoring the sampled Wave]

Before making a Tone with the sampled Wave data and the Tone Parameters, you may wish to play it on the MIDI keyboard to hear what it sounds like. Also, in the Display, the waveform and the sampling parameters can be seen.

● Waveform Display

All the Wave data sampled in the Wave Bank is shown in the Display. When using a color display, the following three colors are seen :

Blue ·····Wava data previously aampled

Red ·····Wave data you have just aampled.

Green·····Empty apace, which has not yet baen used.

● Remaining Time Display

This shows the remaining time of each Wave Bank in 30kHz sampling time.

***Sampling will initialize ell the Tone Paremeters except for the Orig Key, therefore, efter sampling, you need to truncate un−needed portions (See page 46), then set these perameters (See page 69).**

(The default values of the Tone Parameters are shown on page 114.)

[3] Editing Wave Data

Wave data editing changes the shape of the sample, and each process is entirely digital.

Tha following ara manu for Weva data aditing. With a manu cellad, set tha racaive channal of voica group A to the transmit channel of a MIDI davica, end you can haar the Sourca tona if it is bafora tha manu is axacutad, and tha aditad Tone if it is after exacution.

***If the Patch Leval (P.103) of the Patch assignad to Voice Group A is set too low, you cannot hear any sound while editing.**

Truncata (Erasing a part of Wave Data) **(Paga 46)**

Mix (Mixing Weve Data) **(Page 49)**

Combina (Combining Wave Data) **(Paga 51)**

D.Filtar (Digital Filtar) **(Paga 54)**

Wava Loop (Edit for Looping) **(Paga 57)**

Wave Draw (Drawing Wava Data) **(Paga 59)**

Delate (Deleting e Tona) **(Page 63)**

Copy/Mova (Copying and moving a Tona) **(Paga 65)**

Disp Wave (Monitoring a Wavaform of e Wava Bank) **(Paga 67)**

[Selecting a Destination Tone]

This is the location (the number of a Tone) where the edited Wave data is to be written. Any of the 64 Tone numbers, except for the one selected for the source Tone, can be selected.

***If you select the Tone number of a source Tone as a destinetion, "Not Execute" appears in the Display when you try to exacute it, and it is not executed.**

If a Sub Tone is selected as a destination, the editcd Wave is written into it, and it therefore becomes an Original Tone.

When an Original Tone is selected as a destination, the following will occur in the S-550.

○The previous Wave data is erased making a space (=increasing the Remaining Time)

○Edited Wave data is written into the empty space in the selected Wave Bank.

○A Sub Tone that uses the erased Wave data is deleted, becoming an unused Tone.

***The new Wave Dete is written in the Wave Bank of the same Block as the selected destination Tone.**

When there is no space left for sampling in the destination Wave Bank, "Not Execute" is shown when you try to execute, and writing cannot be executed.

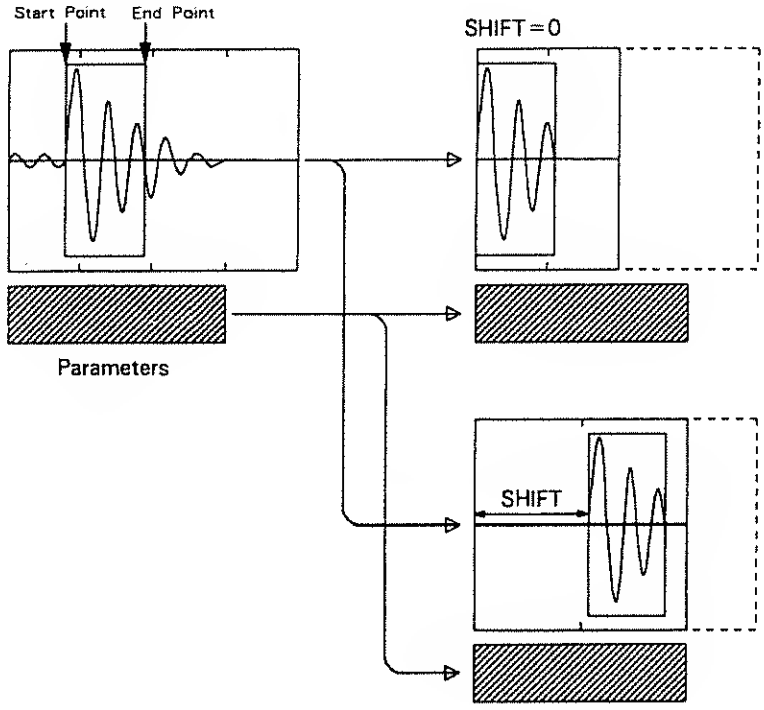
When the remaining space is unsufficient for sampling, the Wave data will be cut.

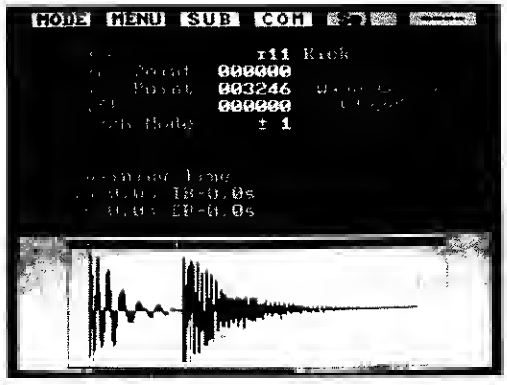
***The remaining time of each Wave Bank is shown in seconds at a 30kHz sampling frequancy. When sampling at 15kHz, multiply it by 2.**

***If there is not enough space, you should delete some un-needed data to increase the remeining time. You may either delete a Tone with [DELETE] in the EDIT mode, or cut off un-needed portions of a wave with [TRUNCATE] in the Utility mode.**

Truncate

This menu allows you to remove the unneeded portions of a Wave, and transfer some portions elsewhere. If a space is made at the end of the Wave data, and it is larger than one segment , that space will be erased and added to the remaining time.





Preperetion 1 **Insert the Utility disk into the Disk Drive.**

Preperetion 2 **Push the UTILITY button or open the Mode Menu end select UTIL, to cell the Utility mode.**

Preperetion 3 **Open the Menu Window end select [Truncate].**

[Selecting a Tone Number to be Truncated]

Source

Select an Original Tone to be truncated. (Here, a Sub Tone cannot be used.) The Wave data of the selected Tone is directly edited. If you wish to retain the original waveform, copy the Tone (page 65).

***Opening the Sub Menu will display the Tone List which you can watch while selecting a Tone. See "Tona List Display" on peges 37 end 38.**

***Whan Truncate is axecuted, eny Sub Tone thet used thet perticular Weve is daleted. If you wlsh to ratain the Sub Tone, cell it with [Tone PRM] in the Edit mode (page 70) end replece the Originel Tona, from which it borrows Weve date, with another Tone.**

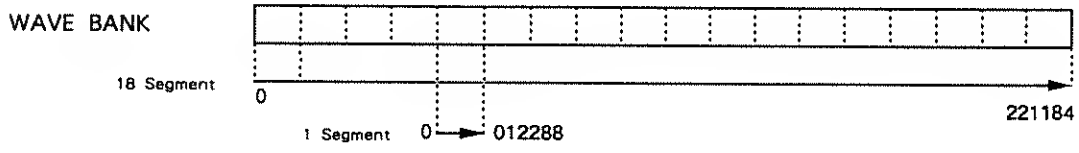
[Setting Points]

Stert Point (the beginning eddress of the needed portion of e weve)

End Point (the end address of the needed portion of a wave)

Set the needed portions of the Wave with the Start and the End points. You can actually listen to the sound while setting these points.

The very beginning of Wave data is address zero. The end of the Wave data that uses one segment (see page 36) is address 012288 (0.4 seconds at 30kHz sampling) and that of the whole Wave Bank is address 221184 (7.2 seconds at 30kHz sampling).



To enter an address, use the Ten Key Pad on the S−550, or the DEC and INC buttons, or the buttons on the Mouse. The amount of the change caused by one push can be selected with the following Search Mode.

***The eddrassas of the Stert and the End points set here ere identical to those sat with [LOOP] in tha Edit mode. This means thet chenging eddrassas here will automaticelly change those set in the Loop Sat mode.**

If you wish to enlarge a particular portion of the Wave, use the three types of Displays in the [LOOP] menu to set the addresses.

Seerch Mode

The amount of change caused by onc push can be selected as follows.

[±1] Address changes in one step.

[±114] Address changes in 114 steps.

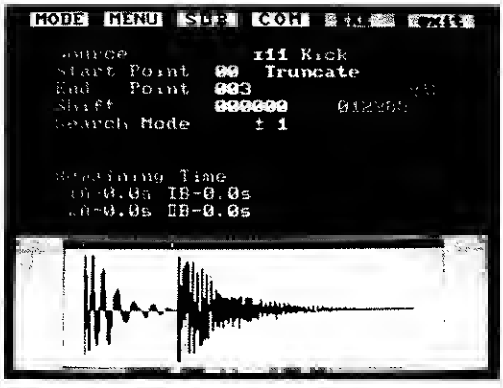
[Peek] Address advances from one peak to another.

[Shift]

Shift

The Wave data bctween the Start and the End points can be shifted forward or backward. Set the address to which the current Start point is to be shifted. When address 0 is set, thc Start point will be shifted to the very begining of the memory area assigned to that data.

[Executing Truncate]

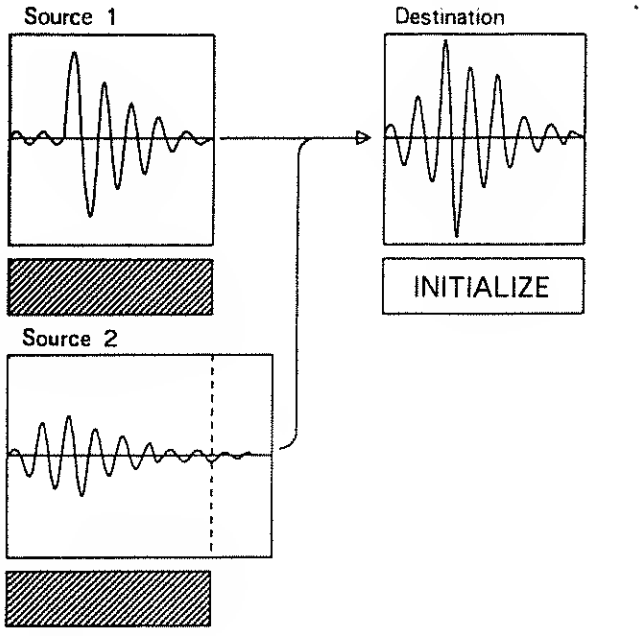


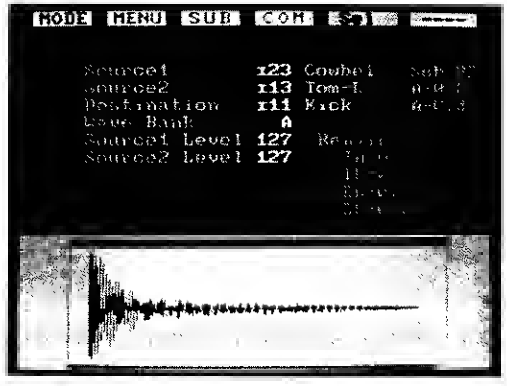
Now, open the command window.

Push the EXECUTE button or the left side button on the Mouse to execute.

Mix

This function mixes two Waves to make a new Original Tone.





Preparation 1 Insert the Utility disk into the Disk Drive.

Preperation 2 Push the Utility button, or open the Mode Menu and select UTIL, to select the Utility mode.

Praperation 3 Open the Menu Window and select [Mix].

[Selecting Tones to be mixed]

Source1
Source2

Select two Original Tones to be mixed. (Sub Tones cannot be mixed.) The length of the new Tone is the same as Source 1's, so select the longer Tone for Source 1.

***When the cursor indicates Source 1, the Wava dete of Source 1 is shown in the Display, and the Source 1 Tone can be played. Moving the cursor to Source 2 displays the weve data of Source 2, and the Source 2 Tone can be played.**

***The two waves are elways mixed from eddress zero, so you may need to truncate the waves to metch the wave heads. (See [Truncete] on page 46.)**

[Selecting a Destination Tone]

The mixture of Source 1 and Source 2 is written to the destination Tone, and all the Tone Parameters are initialized.(See page 45 [Selecting a Destination Tone].)

***Opening the Sub Menu will display the Tone List which you can watch while selecting a Tone. See "Tone List Display" on pages 37 and 38.**

[Selecting a Wave Bank of the Destination Tone]

Wave Bank **[A/B]**

This selects the Bank, A or B, where the mixed Wave data is to be written.

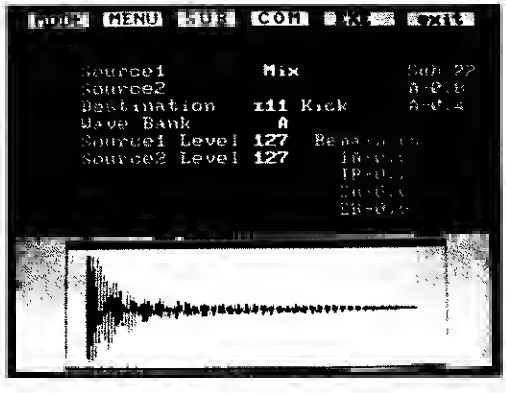
Source 1 Level **[0 to 127]**

This sets the level of the Source 1 Tone in MIX. At 127, the waveform is exactly the same as the sample. While changing the level, you cannot hear the change.

Source 2 Level **[0 to 127]**

This sets the level of the Source 2 Tone in MIX. At 127, the waveform is exactly the same as the sample. While changing the level, you cannot hear the change.

***The sound may be distorted if both levels are set high.**

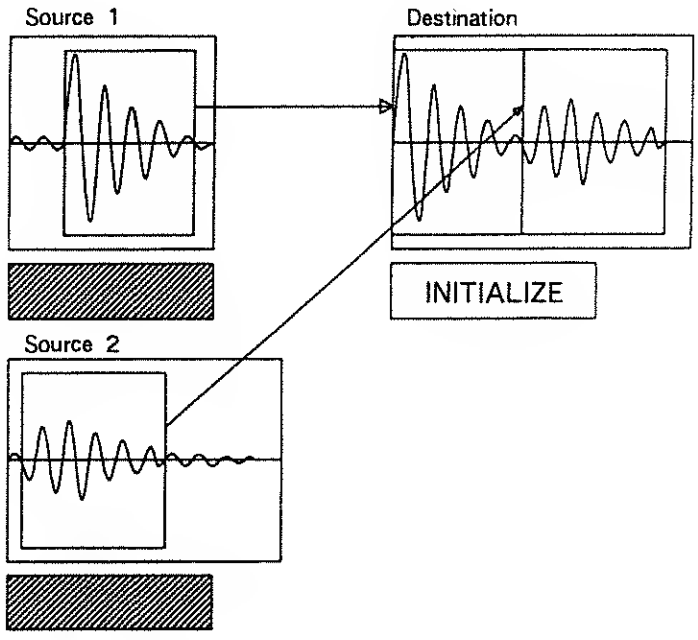


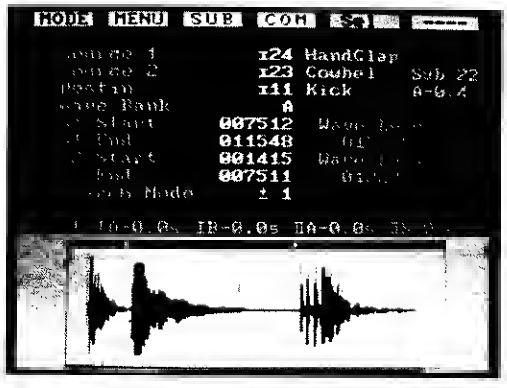
When all the necessary settings are done, open the command window and execute.

Push the EXECUTE button or the left side button on the Mouse to execute.

Combine

This function Combines two Waves to make a new Original Tone. The End point of Source 1 is directly joined to the Start point of Source 2. Here, the Tone Parameters are initialized.





Preparation 1 **Insert the Utility disk into the Disk Drive.**

Preparetion 2 **Push the Utility button, or open the Mode Menu and select UTIL. to select the Utility mode.**

Preparation 3 **Open the Menu Window and select [Combine].**

[Selecting Tones to be combined]

Source1
Source2

Select two Original Tones to be combined. (Sub Tones cannot be combined.)

* When the cursor indicates Source 1, the Wave data of Source 1 is shown in the Display, and the Source 1 Tone can be played. Moving the cursor to Source 2 displays the wave data of Source 2, and the Source 2 Tone can be played.

[Selecting a Destination Tone]

Destination

The combined data of Source 1 and Source 2 is written to the destination Tone, and all the Tone Parameters are initialized.(See page 45 [Selecting a Destination Tone]).

***Opening the Sub Menu will display the Tone List which you can watch while selecting a Tone. See "Tone List Display" on pages 37 and 38.**

[Selecting a Wave Bank of the Destination Tone]

Wave Bank [A], [B]

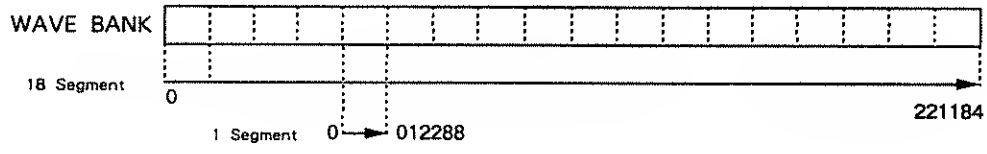
This selects the Bank, A or B, where the combined Wave data is to be written.

[Setting Points]

Source 1 **Start Point (the beginning address of the needed portion of a wave)**
End Point (the end address of the needed portion of a wave)

Source 2 **Start Point (the beginning address of the needed portion of a wave)**
End Point (the end address of the needed portion of a wave)

Set the needed portions of the Wave with the Start and the End points. You can actually listen to the sound while setting these points.



The very beginning of Wave data is address zero. The end of the Wave data that uses one segment (see page 36) is address 012288 (0.4 seconds at 30kHz sampling) and that of the whole Wave Bank is address 221184 (7.2 seconds at 30kHz sampling).

To enter an address, use the Ten Key Pad on the S−550, or the DEC and INC buttons, or the buttons on the Mouse. The amount of change caused by one push can be selected with the following Search Mode.

***The addresses of the Start and the End points set here ere identicel to those set with [LOOP] in the Edit mode. This means thet changing addresses here will automatically change those set in the Loop Set mode.**

If you wish to enlarge a particular portion of the Wave, use the three types of Oisplays in the [LOOP] menu to set the addresses.

Search Mode

The amount of the change caused by one push can be selected as follows.

[±1] Address changes in one step.

[±114] Address changes in 114 steps.

[Peak] Address advances from one peak to another.

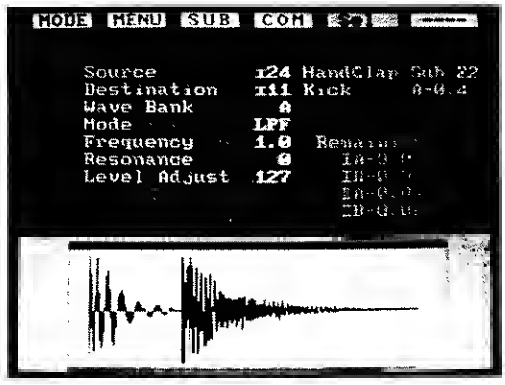
[Executing Combine]

When all the necessary settings are done, open the command window and execute.

Push the EXECUTE button or the left side button on the Mouse to execute.

D.FILTER

With this function, the Wave data is proccssed by a Digital Filter. There are 2 types of digital filter in the S−550. This one permanently changes the Wave data. It is also a STATIC filter because it does not vary with time, as does the other type, the TVF. (See page 86.)
And if DC (Direct Current) content (=Low range noise) is mixed with the sample, causing unclear sound, you can cut the DC content from the wave data.



Preparetion 1 **Insert the Utility disk into the Disk Drive.**

Preperation 2 **Push the Utility button, or open the Mode Menu end select UTIL, to select the Utility mode.**

Preperetion 3 **Open the Menu Window, end select [D.FILTER].**

[Selecting a Tone to be Digital−filtered]

Sourca

Select the source Tone which is to be filtered.(A Sub Tone cannot be used.)

[Selection a Destination Tone]

Dastination

The source is processed by the Digital Filter and is written into the Destination Tone. The Tone Parameters are copied.

See "Selecting a Destination Tone" on page 45.

＊Opening the Sub Menu will displey the Tone List which you can watch when selecting e Tone. (See "Tone List Display" on peges 37 and 38.)

[Selecting a Wava Bank of tha Dastination Tona]

Wava Bank **[A, B]**

The Wave data is written into the Wave Bank of the same Block as the selected Destination Tone. Select A or B.

[Selecting a Filter Mode]

Mode

[LPF] (Low−pass Filter)

This filter passes lower frequencies and cuts higher frequencies.

[HPF] (High−pess Filter)

This filter passes higher frequencies and cuts lower frequencies.

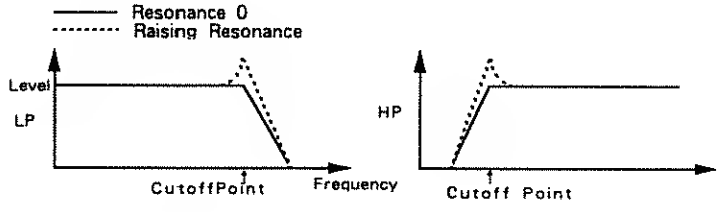
You can select one of the above two filters ; −12dB/Octave Lowpass Filter or Highpass Filter, where cutoff frequency and resonance can be set. By executing D.Filter twice, −24dB/Octave, and three times, −36dBm/Octave filtering effects can be obtained.

Frequency (Cutoff Frequency) **[0.1] to [10.0]**

This sets the cutoff frequency from 0.1kHz to 10.0kHz.

Resonence **[0 to 127]**

At higher values, the harmonic content at the set cutoff frequency is emphasized.



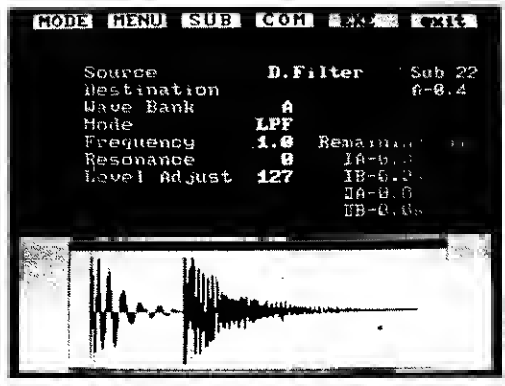
Level Adjust **[0 to 127]**

At 127, the original Wave data is sent to the filter. If the sound is distorted, adjust the level here.

***Digital filtering is processing the weve by computer, end therefore, the filtered sound cannot be heard while setting the digitel filter peremetars. So, you may have to repeet the filtering process to obtein the optimum result.**

***When the Level Adjust Is set to around 127, the sound mey be distorted. If so, lower the level, and repeat.**

[Executing Digital Filter]



When ell the necessery settings for filtering ere mede, open the commend window end execute.

Open the commend window, end select "D. Filter"

Push the EXECUTE button or left side button on the Mouse.

[Executing DC−Cut]

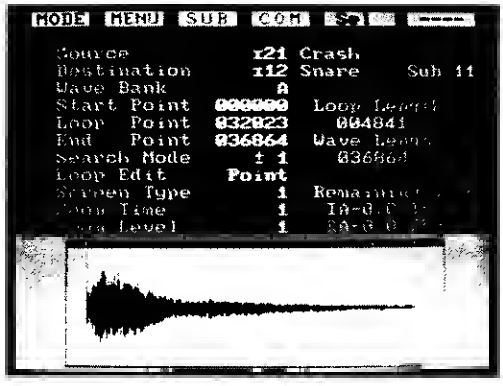
If DC (Direct Current) content (=Low range noise) is mixed with the sample, causing unclear sound, you can cut the DC content from the wave data.

Open the command window, end select "DC−Cut"

Push the EXECUTE button or left side button on the Mouse.

Wave Loop

By reading a loop (=a part of wave data from the loop point to end point) repeatedly, you can make a longer tone. (See page 75.) Sampled waves, however, often have complicated waveforms, therefore it is very difficult to find out the loop points and end points where the waves are connected smoothly. The Smoothing function of the S−550 changes the shape of the wave from the loop to the end points so that loops can be connected smoothly.



Preparation 1 **Insert the Utility disk into the Disk Drive.**

Preperation 2 **Push the Utility button, or open the Mode Menu and select UTIL, to select the Utility mode.**

Preparetion 3 **Open the Menu Window, and select [Wave Loop].**

[Selecting a Tone to be looped]

Source

Select the source Tone to be looped.(A Sub Tone cannot be selected.)

[Selecting a Destination Tone]

Destinetion

Select a destination Tone where the edited wave data is written. Tone parameters are copied from the Source Tone, but the Loop mode is set to [Forward].

See "Selecting e Destinetion Tone" on pege 45.

If the spece of the destinetion Tone is shorter then the source Tone, "Not Execute" is shown end dete cennot be written.

[Selecting a Wave Bank of the Destination Tone]

Wave Benk [A, B]

The Wave data is written into the Wave Bank of the same Block as the selected Destination Tone. Select A or B.

[Setting a Loop Point]

Start Point
Loop Point
End Point

The wave between the loop point and the end point set here is processed so as to be connected smoothly.

***If you open the Command Window and execute Auto Loop first, then Smoothing, more natural loop will be creeted. See pege 81 "Auto Loop".**

***The eddress of eech point set here is the seme es that set with [Loop] in the Edit mode. In other words, changing addresses here will change the addresses of the Source Tone set with Loop Set.**

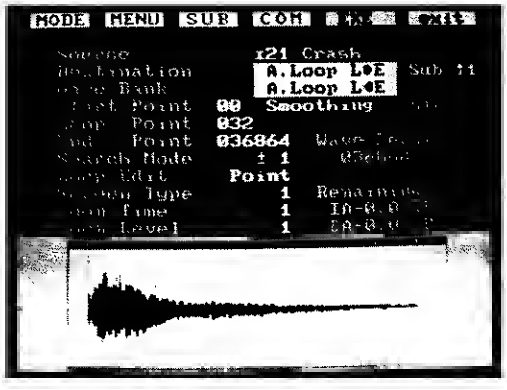
Seerch Mode
Loop Edit
Screen Type
Zoom Time
Zoom Level

(See pege 7B.)

***The Smoothing function cannot be executed if the length between the start point and the loop point is less then 228 addresses.**

[Executing Smoothing]

Smoothing

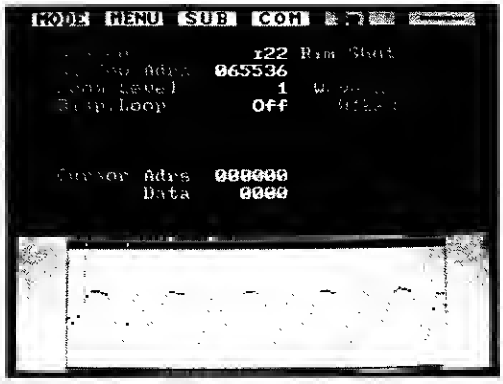


Push the EXECUTE button or the left side button on the Mouse.

***The Smoothing is processing the weve by computer, and therefore, the processed sound cennot be heerd while setting the smoothing parameters. So, you mey heve to repeat the smoothing process to obtain the optimum result.**

Wave Draw

In this menu, you can draw a waveform using the Mouse.



Preperetion 1 **Insert the Utility disk into the Disk Drive.**

Preperetion 2 **Push the Utility button, or open the Mode Menu and select UTIL, to select the Utility mode.**

Preparetion 3 **Dpen the Menu Window, and select [Weve Draw].**

[Selecting a Tone for drawing a wave]

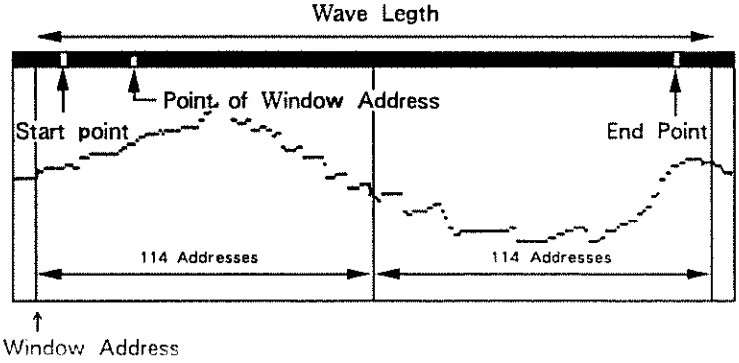
Source

Select an Original Tone where you wish to draw a waveform. The wave data of the selected Tone is directly edited. So if you wish to retain the original waveform, copy the Tone.(See page 65.) Here, you cannot select a Sub Tone.

***Dpening the Sub Menu will displey the Tone List which you cen wetch when selecting a Tone.(See "Tone List Displey" on peges 37 end 38.)**

[Selecting the position (address) of the Wave data to be edited]

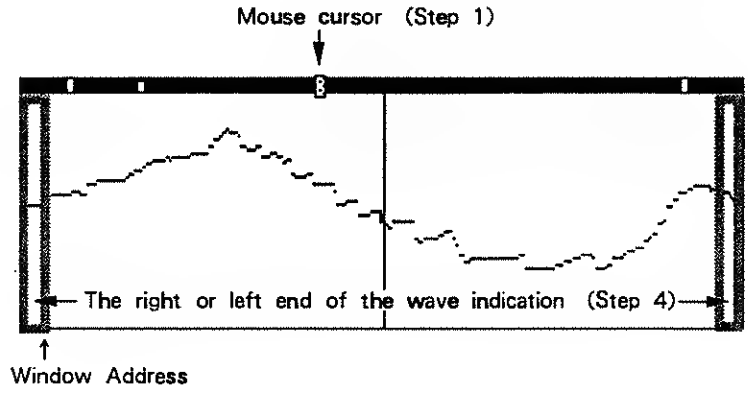
Normally, you want to edit a part of the Wave data. The position you want can be assigned with Mouse or using the panel switches on the S−550. The blue belt shown above the wave indication represents the whole length of the Wave data. The small white square on the blue belt represents the position (=Window Address) of the Wave data which you can edit. The wave data at the Window Address is enlarged and shown under the blue belt as much as 228 addresses.



■ Assigning Window Address using the Mouse

Step 1 Move the Mouse cursor (red triangle) onto the blue belt, end the cursor becomes e white squere.

Step 2 Move the Mouse cursor to the position (Window Address) you went.



Step 3 Pushing the left side button on the Mouse will show the weve dete et the essigned position (=Window Address).

Step 4 Move the cursor (now red triangle) outside the right or left end of the weve indicetion, end the cursor becomes en errow.

Step 5 Pushing the left side button on the Mouse scrolls the weve indication in 114 steps to the right or left.

■ Assigning Window Address on the S-550's penel

Step 1 Move the cursor to the Window Address peremeter in the Displey using the Cursor Button.

Step 2 Pushing the INC or DEC button will scroll the wave date to the right or left in 114 address steps. The eddress you went cen be directly set by using the Ten Key Pad.

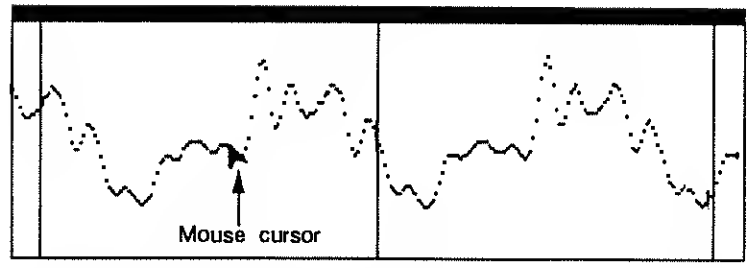
[Zoom Level]

Zoom Level

The wave display can be enlarged in the vertieal direetion (7 levels).

At [1], the entire wave ean be seen, and at [7], the waveform is the largest.

[Drawing a Waveform]



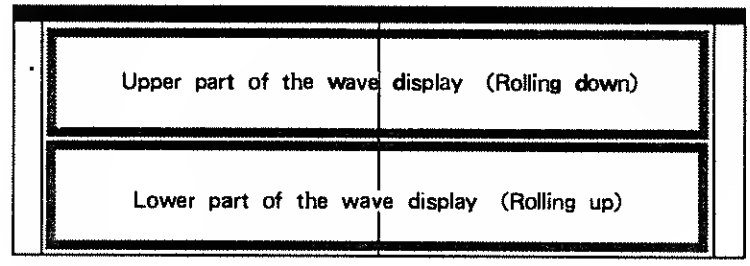
Step 1 **Move the cursor to where you wish to drew the weveform, end draw e weve while holding down the left side button on the Mouse.**

The wave you have drawn is shown in red.

Step 2 **Releese the button.**

[Rolling up and down]

You can roll up or down the wave display.



Move the cursor to the upper part of the wave display screen, then push the right side button on the Mouse, and the wave display will be rolled down. Move the cursor to the lower part to roll up.

***When the Zoom Level is sat to [1], the entire wave is already shown, therefore, it cannot be rolled down or up.**

***For successful wave drawing, select Zoom Level [1], and draw the waveform roughly first, then select [7], roll up or down the wave display and drew a finer line.**

To return the cursor to the parameter display, push the right side button on the Mouse in any position except the [Rolling up and down] area, for example, while on the blue line.

[Window Loop]

Window Loop **[ON/OFF]**

The 228 addresses (accessible by Window Address) are actually such short sounds that they cannot be monitored, but by looping them they can then be monitored.

W.LOOP "On" always sets Start point = address 0, Loop Point = Window address (the vertical line at the left end) and End point = Window address + 228 (the vertical line at the right end). With KEY ON message, the wave data is read from address 0, and the loop from the Window address to that plus 288 is repeated. When "On", it is possible to draw a waveform while listening to a sound.
When "Off", the original Start point, Loop point and End point are retrieved. If you move to another menu with W. LOOP "On", the original points will be automatically rewritten.

[Executing the Command]

Open the Commend Window, select whet you went to execute, end push the EXECUTE button or the left side button on the Mouse to execute the following commnds.

COPY

This can copy the 228 addresses of wave data shown in the Display to the succeeding data (up to the Wave End).

CLR WINDOW

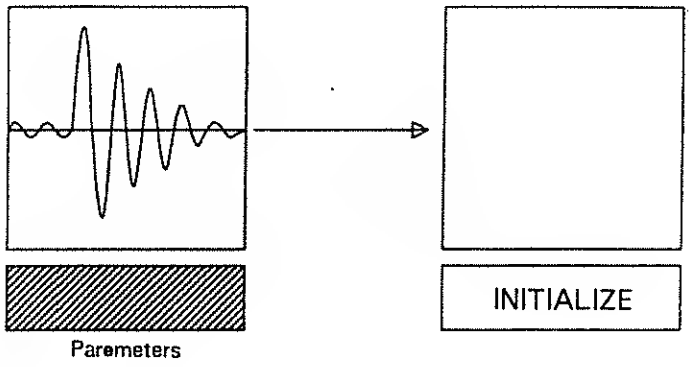
This erases the 228 addresses of wave data shown in the Display.

CLR ALL

The entire Wave data from the Wave Top to the Wave End can be erased.

Delete

This menu allows you to delete a Tone or a Wave Bank (consists of several Tones) that is not needed.



Preparetion 1 **Push the EDIT button, or open the Mode Menu end select EDIT, to enter the Edit mode.**

Preparetion 2 **Dpen the Menu Window and select [Delete].**

[Deleting an unneeded Tone]

To delete a Tone, call the Tone to the Source position.

***Dpening the Sub Menu will displey the Tone List which you cen wetch when selecting e Tone.(See "Tone List Display" on peges 37 end 38.)**

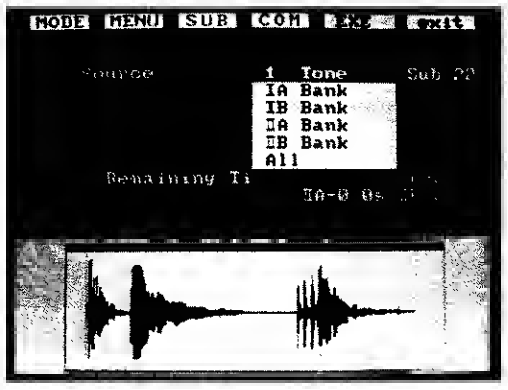
■Deleting en Originel Tone Deleting an Original Tone naturally erases the Wave data included in that Tone. The space created is added to the Remaining Time. Also,the Tone Parameters are initialized. By deleting an Original Tone, any Sub Tone that borrows Wave data from it will also be deleted. In other words, the space is regarded as being an empty Sub Tone.

■Deleting e Sub Tone Deleting a Sub Tone will initialize the Tone Parameters. This, therefore, is regarded as an empty Sub Tone, one that does not have an Original Tone. Deleting a Sub Tone, however, does not erase the Original Tone data used by the Sub Tone.

When you have selected the Tone to be deleted, open the command window and execute [1 Tone].

[Deleting a Wave Bank]

This allows you to delete a Wave Bank which contains several Tones.



This erases the entire sampling data of that Wave Bank, initializing all the Tone Parameters of the Tones, changing them to empty Sub Tones that do not have Original Tones. The Sub Tones which were using those data will be initialized, becoming empty Sub Tones.

I A Bank

This deletes the Tone data of the Wave Bank A in Block [I].

I B Bank

This deletes the Tone data of the Wave Bank B in Block [I].

II A Bank

This deletes the Tone data of the Wave Bank A in Block [II].

II B Bank

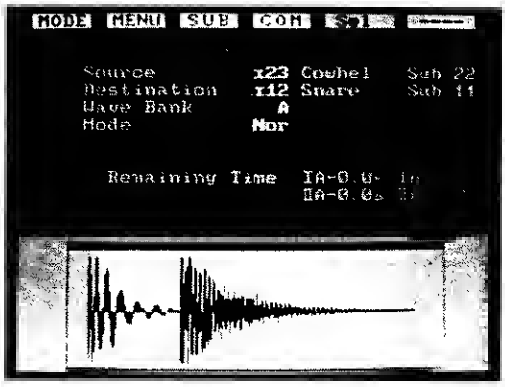
This deletes the Tone data of the Wave Bank B in Block [II].

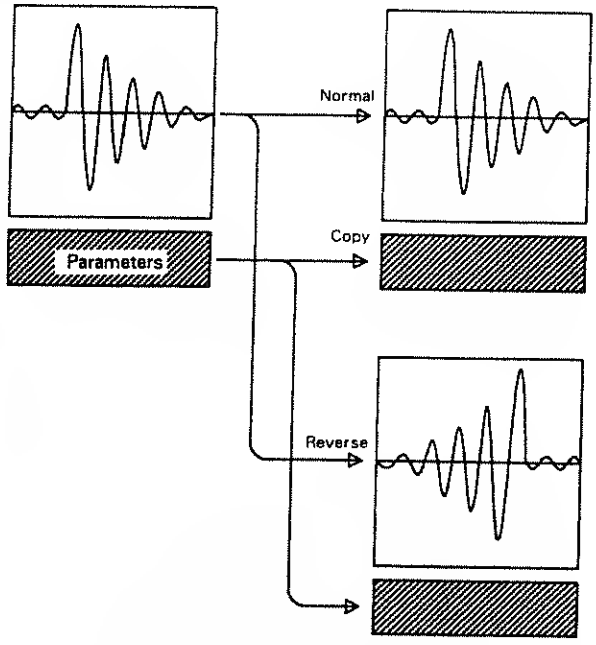
ALL

This deletes the entire Tone data in the internal memory.

Copy/Move

In this menu, you can copy the entire Wave data and the Tone Parameters, at the same time. Also, Reverse Copy makes a reversed copy of the source Wave.





Preparation 1 **Push the EDIT button, or open the Mode Menu and select EDIT to enter the Edit mode.**

Preparation 2 **Open the Menu Window end select [Copy/Move].**

[Selecting a Tone to be copied (moved)]

Source

Select the Tone you wish to copy or move to the other location.(A Sub Tone cannot be used.)

[Selecting a new location for the Tone]

Destination

Select a new location (destination Tone) as explained on page 45.

***Opening the Sub Menu will display the Tone List which you can watch when selecting a Tone.(See "Tone List Display" on pages 37 and 38.)**

[Selecting a Wave Bank]

Weve Bank [A, B]

The Wave data is written into the Wave Bank of the same Block as the selected Destination Tone. Select A or B.

[Setting the Copy Mode]

This selects Normal or Reverse Copy Mode.

NORMAL

An exact copy of the Wave data can be made.

REVERSE

A reversed copy of the Wave data can be made.

[Executing Copy (move)]

When you heve set ell the necessery parameters for copying, open the commend window and execute.

Push the EXECUTE button or the left side button on the Mouse.

Copy

This copies the source Tone to the destination Tone, leaving the source Tone at the original location.

Move

This copies the source Tone to the destination Tone, erasing the source Tone from the original location.

Disp. Wave

In this menu, the entire Bank to which the Tone currently in use belongs, is shown.

Preparation 1 **Push the EDIT button, or open the Mode Menu and select EDIT to enter the Edit mode.**

Preparation 2 **Open the Menu Window and select [Disp Wave].**

[Monitoring Wave]

To monitor the wave of one Tone, select the relevant Tone to the Source position.

***Opening the Sub Menu will display the Tone List which you can watch for selecting a Tone.(See "Tone List Display" on pages 37 and 38.)**

The entire Wave Bank to which the selected Tone belongs is shown. If an Original Tone is selected, the selected Tone is shown in red and the other Tones are shown in blue.

***When a Sub Tone is in use, the wave data of the Original Tone that is used in the Sub Tone is shown in red.**

***If the selected Tone has already been deleted, Wave Bank A of that Block is shown. In this case, red wave indication is not shown.**

***When you have selected the Tone to be monitored, open the command window and select [1 Tone], then push the EXECUTE button or the left side button on the Mouse.**

[Monitoring the entire Wave Bank]

Tha command window also contains the function of monitoring the entire Wave Benk.

Push the EXECUTE button or the left side button on the Mouse.

I A Bank

This shows the wave data of the Wave Bank A in Block [I].

I B Bank

This shows the wave data of the Wave Bank B in Block [I].

II A Bank

This shows the wave data of the Wave Bank A in Block [II].

II B Bank

This shows the wave data of the Wave Bank B in Block [II].

4 Setting Tone Parameters

Tone Parameters involve how the recorded Wave data is read and reconstructed. Wave data is not transformed by editing Tone Parameters, therefore the Tone Parameters may be edited as many times as you like without affecting the Wave data itself.

If you wish to listen to the Tone while editing a Tone Parameter, set the receive channel of Voice Group A to the same number as the transmit channel of the external MIDI device.

***If the Patch Level (P.103) of the Patch assigned to Voice Group A is set too low, you cannot hear any sound while editing.**

Tone PRM (Setting Main Tone Parameter) **(Page 70)**

Loop (Setting a Loop) **(Page 75)**

LFO (Setting LFO modulation) **(Page 82)**

TVF (Setting Time Variant Filter) **(Page 86)**

TVA (Setting Time Variant Amplifier) **(Page 92)**

Tone Map (Parameter Setting with Tone Map) **(Page 96)**

Tone PRM

Here, the most important Tone Parameters are set.

Preperetion 1 **Push tha EDIT button, or open the Moda Menu and select EDIT, to enter the Edit mode.**

Praparation 2 **Opan the Manu Window and selact [Tone PRM].**

[Calling the Tone to be edited]

The number and the name of the selected Tone is shown at thc upper left of the Display. Some more information of the Tone is shown at the right of the Tone name.

A-0.8	Original Tone.	Wave Bank : A, Sampling Time : 0.8seconds (30kHz sampling)
A-0.8x2	Original Tone	Wave Benk : A, Sampling Time : 0.8seconds x 2 (15kHz sampling)
Sub 11	Sub Tone	This borrows Wave data from Originel Tone 11
Sub --	Deleted Tone	A deleted Tone or a Sub Tone thet does not borrow Wave data

***Opening the Sub Menu shows tha Tone List display which you can watch whila selecting a Tone. Cell E Source (Edit Source), than salact e Tone. (See pages 37 and 38.)**

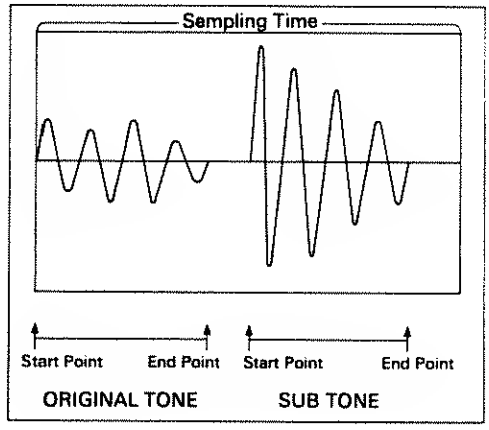
[Making a Sub Tone]

Original Tone **[I 11 to II 48] / [***]**

The S−550 allows you to borrow the Wave data from an Original Tone and make a different Tone (=Sub Tone) with different values of Tone Parameters. A Sub Tone does not sound unless Wave data is borrowed from an Original Tone.

Call a Sub Tone or unused Tone in the Tone List Display, then here, select the Original Tone from which Wave data is borrowed. When an Original Tone is selected, Tone Parameters that are involved with looping are copied to that Tone. And the Wave data is read from that Tone by playing the keyboard.

You can make a Sub Tone which is completely different from the Original Tone which shares the same Wave data. For instance, you can add vibrato or change the envelope to make a sound of different nuance. Two sounds can be created from one Wave data by connecting two waves using Truncate (page 46) and Combine (page 51), then setting two different Start and End points. This makes the Wave Banks more useful. The system disk contains many Tones made in this way.



***It is not possible to borrow an Original Tone from a different Block.**

An Original Tone has its own Wave data. When an Original Tone is called, "" is shown and this cannot be changed.**

***If a Sub Tone is selected, "---" is shown and no sound is heard.**

***When there is no empty Tone, erase an unneeded Tone with the Delete function (page 63), then call the Tone number of the deleted Tone.**

[Tone Parameter Setting]

Orig. Key (Originel Key Number) **[C0 to C9]**

This changes the original key number of a sample (page 39). Playing the key selected here will make sound in the pitch of the sampled sound. Middle C is represented by C4, and a semi-tone by #.

***The S-550 can pley up to two octavas highar than tha pitch of the sampled sound. Any pitch that exceeds that does not sound.**

Pitch Follow **[On/Off]**

When Pitch Follow is [On], different pitches are played by differcnt keys, but when [Off], the pitch of the Original Key will sound whatever key is played.

Shift **[-24 to +24]**

This sets the pitch when the above Pitch Follow is set to [Off]. At [0], the original pitch of the sampled sound is obtained. At [+1], the pitch is a semi-tone higher than the Original Key, and at [-1], a semi-tone lower.

Fine Tune **[-64 to 0 to 63]**

This adjusts the pitch of Tone subtly. ± 50 is about half a semi-tone.

P. LFO Depth (LFO Depth of Pitch Moduletion)

This sets the depth of the LFO that controls the pitch modulation. The LFO parameters are set in [LFO] on page 82.

P. Bender (Pitch Bender On/Off) **[On/Off]**

When this is set to [On], the pitch of this Tone changes with the Bender messages received. When [Off], the pitch is not affected by the Bcnder messages.

Aftertouch (Aftertouch On/Off) **[On/Off]**

When it is set to [On], Aftertouch effccts are obtained with the aftertouch messages (Aftertouch Sens and Aftertouch Assign) set in the Patch. At [Off], the Tone is not affected by receivcing the aftertouch mcssages.

TVF (TVF On/Off) **[On/Off]**

When the TVF (Time Variant Filter) is set to [On], the cutoff points of the Digital Filter change as set in [TVF] menu.(See page 86.)

Output Assign (Assigning Tones to Output Jacks) **[1 to 8]**

Tones are output from the output jacks assigned in [Output Assign] = [Tone] (page 103) and the jacks set in this parameter.

Level (Tone Level) **[0 to 127]**

This adjusts the volume of each Tone.

Name (Tone Name)

Up to eight letters can be used for naming a Tone.

***A Tone neme can also be enterad with the Ten Key Pad. Each push of the number kay will call a letter in the sequence shown balow.**

1	→A→B→C	7	S→T→U→
2	→D→E→F	8	→V→W→X
3	→G→H→I	9	→Y→Z→/
4	→J→K→L	0	→+→−→×
5	→M→N→O	ENT	Space
6	→P→O→R		

[Executing Commands]

● Initializing, Copying and Swepping Parameters

INT initializes the Parameters of the Tone currently called. COPY copies the Parameters of a source Tone to the Tone currently called. SWAP swaps the Parameters of a source Tone with the Tone currently called.

To assign the source Tone for COPY or SWAP, open the Sub Menu and call C.Source (Command Source) where you select the source Tone from the Tone List display.

Opening the command window, the Source Tone appears on the Message Line.

COPY ALL

This copies all the parameters of the Source Tone to the Tone currently selected.

COPY PAGE

This copies only the parameters of the Source Tone which are shown in this Display to those of the Tone currently selected.

INT ALL

This initializes all the parameters of the Tone currently called.

INT PAGE

This initializes only the parameters which are shown in this Display.

☞**The defeult velues of the parameters are shown on page 114.**

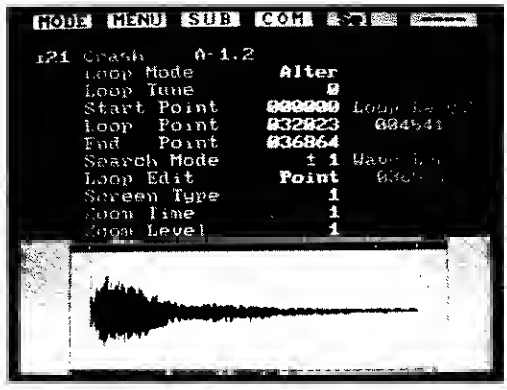
SWAP ALL

This swaps all the parameters of the Tone currently called with those of the source Tone.

SWAP PAGE

This swaps only the parameters shown in the Display with those of the Source Tone.

Loop

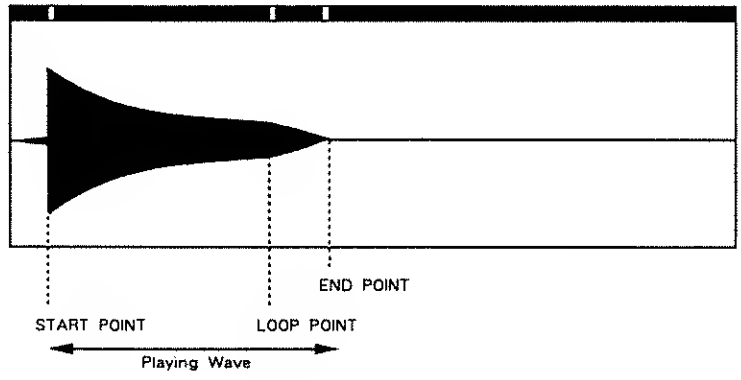


Preperation 1 **Push the EDIT button, or open the Mode Menu and select EDIT, to enter the Edit mode.**

Preperation 2 **Open the Menu Window and select [Loop].**

One Shot is playing a sample only once, therefore the sound disappears instantaneously. Reverse is playing a sample once in a reverse direction. If you wish the sample to be played longer than just once, Looping lets the wave data or a part of the wave data play as long as you push a key. One Shot may be good for percussive sounds, and Looping is ideal for flute or violin.

The sampled wave can have a Start Point, End Point and Loop Point. The Start Point is where the S−550 starts playing the sample, and the End Point is where playback ends. When you play a key, the sample plays normally until it reaches the End point then it goes back to the Loop point and re−plays through the loop. The Looping process continues for as long as the key is pressed.



In this menu, you can set the Start Point, End Point, Loop Point, and other parameters for looping and Auto Loop that opens a command window to let the S−550 detect the Loop Point itself.

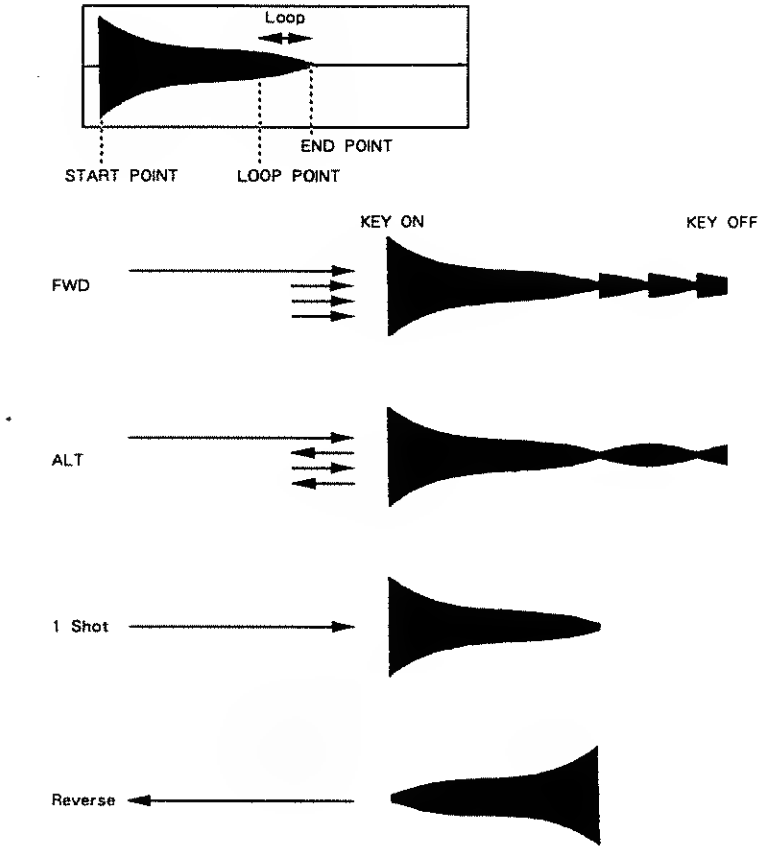
[Calling the Tone to be edited]

The number and the name of the selected Tone is shown at the upper left of the Display.

***Opening the Sub Menu shows the Tone List display which you can watch while selecting a Tone. Call E Source (Edit Source), then select a Tone. (See pages 37 and 38.)**

[Setting Loop Mode]

Loop Mode



Select one of the four Loop modes : FWD (Forward), ALT (Alternate), 1 SHOT (One Shot) or Reverse.

FWD (Forwerd)

When you play a key, the sample plays until it reaches the End point, then repeats playing from the Loop point to the End point.

ALT (Alternate)

The sample plays until it reaches the End point, and repeats playing between the Loop point and the End point.

1Shot (One Shot)

The sample is played from the Start point to the End point once.

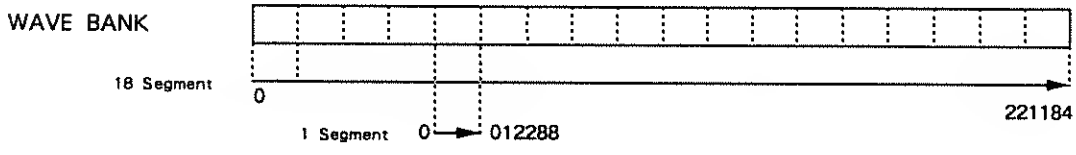
Reverse

The sample plays in a reverse direction (from the End point to the Start point) only once.

[Setting Points]

Stert Point
Loop Point
End Point

The points are represented with the positions in memory. This is called Address. The beginning of the wave data is address 0. The last point of the wave of the shortest sampling time (0.4 sec at 30kHz sampling) is 012288 address. The last point of the wave data that uses the entire Wave Bank is 221184 address (7.2 seconds at 30kHz sampling).



The address can be set with the Ten Key Pad or INC and DEC buttons or the buttons on the Mouse. How the address is actually changed by pushing the INC and DEC buttons or the buttons on the Mouse is determined by the following Search modes.

Search Mode

This selects how the address actually changes by one push of the button.

[±1] Address changes in single steps.

[±114] Address changes in 114 steps.

[Peak] The S−550 searches the peaks of waves, advancing from one peak to another.

Loop Edit

This selects one of the two methods of loop setting.

[Point]

The Loop point and the End point can be separately set.

[Length]

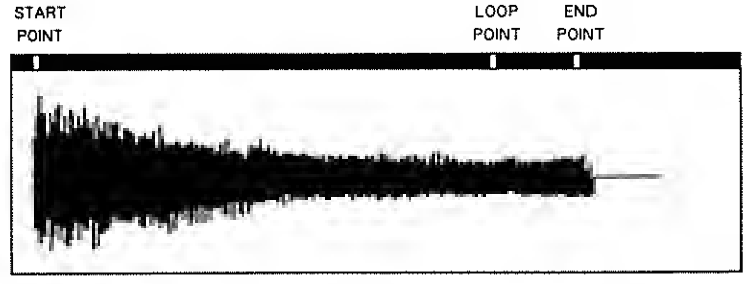
Moving the End point changes the Loop point together with the End point, but the Loop length is not affected. This is useful to change the place of the wave for looping in the FWD Loop Mode.

Screen Types

Three screens are provided for setting the Start Point, Loop Point and the End Point. As you play the keyboard, set the points using these three screens.

TYPE1

The entire shape of the waveform can be seen in this screen. Whether the wave is long or short, the entire wave is shown all over the Display. The Start point, Loop point and the End point are shown as small digits on the belt line above the wave display. Here, you may set the points roughly.

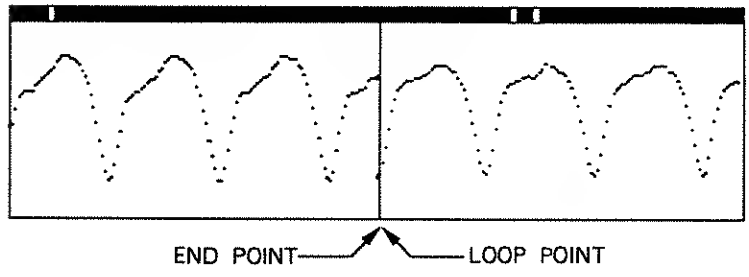


TYPE2

In this screen, you can make a loop. You can make a stable sustain sound more successfully if using the continuation of similar waves.

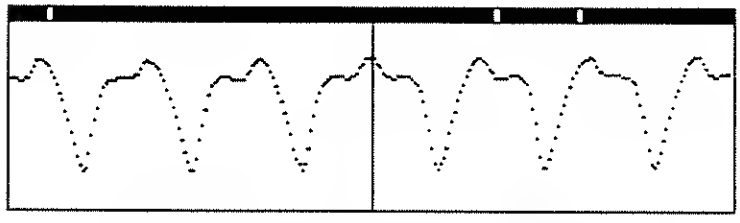
When the Loop Mode FWD (Forward) is selected, the left side of the center line shows the waveform up to the End point, and the right side shows the waveform from the Loop point. By connecting waves deftly on this line, a natural sustain sound can be obtained.

FWD



In the Loop Mode ALT (Alternate), the center line becomes the Loop point when the cursor is put on the Loop position. Therefore, you can see the waveform turned back at the Loop point. When the cursor is on the End position, the waveform is turned back at the End point. In this mode, though, looping is normally quite difficult.

ALT

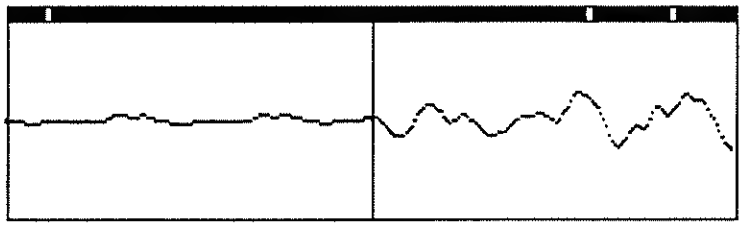


e.g.) Waveform turned back at the End Point

TYPE3

In this screen, each point can be finely seen.

When the cursor is positioned at the Start, the center line becomes the Start point, at the Loop, the same line is the Loop point, and at the End, it is the End point.



e.g.) Setting Start Point

Zoom Time

This can enlarge or diminish the wave in [TYPE2] and [TYPE3] screens in the direction of Time.

Zoom Level

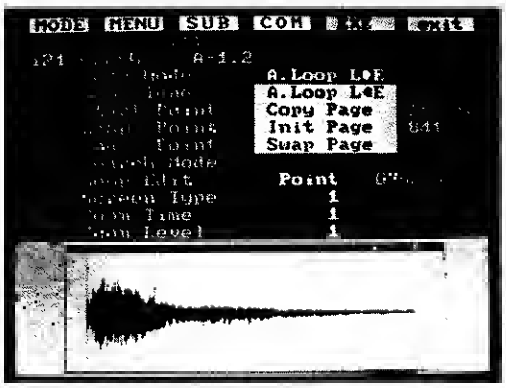
This can enlarge or diminish the wave in [TYPE2] and [TYPE3] screens in the direction of Level.

[Setting Loop Tune]

Loop Tune **[−64 to 0 to 63]**

Before entering a loop and after leaving the loop, the pitch may differ. If so, adjust the pitch of a loop here.

[Executing the Commands]



INT initializes the display's Parameters of the Tone currently called. COPY copies the Parameters of a source Tone to the Tone currently called. SWAP swaps the Parameters of a source Tone with the Tone currently called.

● Auto Loop

It is possible to make the S−550's internal computer find out the Loop point and the End point for FWD looping. This is called Auto Looping. The Auto Loop function can find out the new Loop point and the End point between the Loop point and the End point currently set.

A.Loop L→E

This mode searches through the loop from the Loop point to the End point.

A.Loop L←E

This mode searches through the loop from the End point to the Loop point.

***The Auto Loop may not be able to find a loop when the range of the loop you set is too short or the wavaform is not consistant. Set the loop fairly long and try with a different loop length.**

***Auto Loop searches only for a FWD loop, therefore, executing the Auto Loop automatically turns the Loop Mode to FWD.**

● Initializing, Copying and Swapping Parameters

INT initializes the Parameters of the Tone currently called. COPY copies the Parameters of a source Tone to the Tone currently called. SWAP swaps the Parameters of a source Tone with the Tone currently called.

To assign the source Tone for COPY or SWAP, open the Sub Menu and call C.Source (Command Source) where you select the source Tone from the Tone List display.

Opening the command window, the Source Tone appears on the Message Line.

COPY PAGE

This copies only the parameters of the Source Tone which are shown in this Display to those of the Tone currently selected.

INT PAGE

This initializes only the parameters which are shown in this Display.

☞The default values of the parameters are shown on page 114.

Swap Page

This swaps only the parameters of the Source Tone which are shown in this Display with those of the Tone currently selected.

LFO

The LFO controls pitch modulation, TVF and TVA.

Preparation 1 **Push the EDIT button, or open the Mode Menu and select EDIT, to enter the Edit mode.**

Preperation 2 **Open the Menu Window end select [LFO].**

[Calling the Tone to be edited]

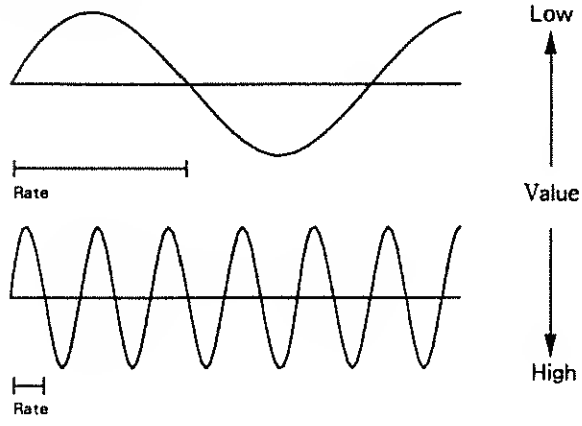
The number and the name of the selected Tone is shown at the upper left of the Display.

- ***Opening the Sub Menu will show the Tone List display which you can watch for selecting a Tone. Call E. Source (Edit Source), then select e Tone. (See pages 37 and 38 "Tone List Display".)**

[LFO Setting]

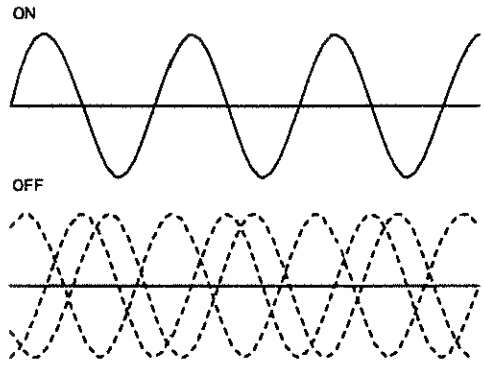
Rate **[0 to 127]**

This sets the speed of the LFO modulation. Higher values increase the speed.



Sync **[On/Off]**

To start the LFO modulation at zero phase, set this to [On].



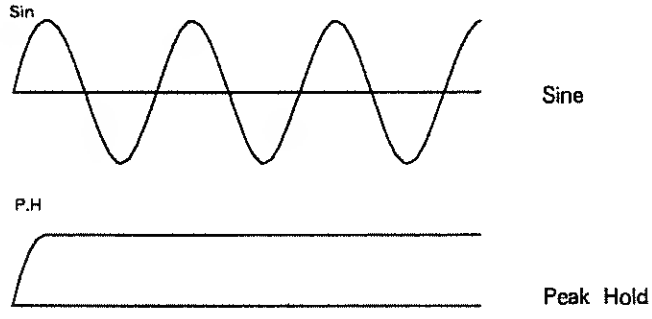
Mode

[Sin] (Sine)

Waveform of the LFO modulation is a sine wave.

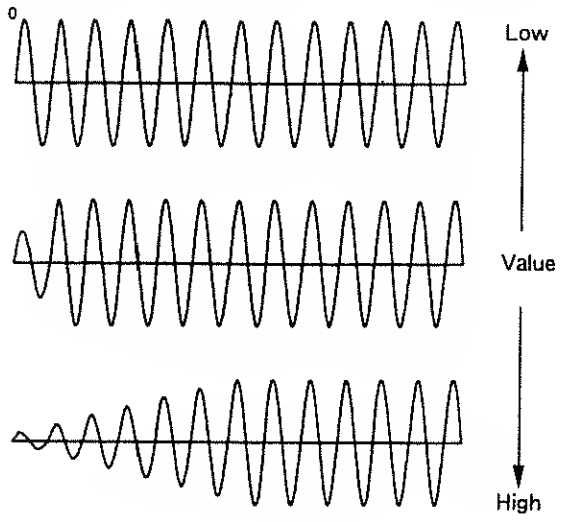
[P.H] (Peek Hold)

When the LFO wave reaches its peak, it is sustained.



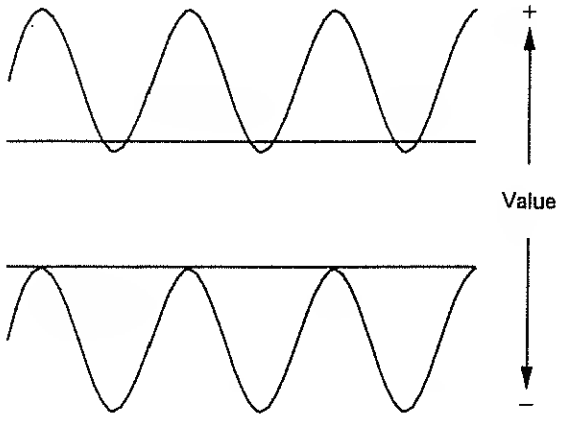
Delay **[0 to 127]**

This can increase the width of the LFO wave gradually. Higher values make the time needed for the wave to reach the set depth longer.



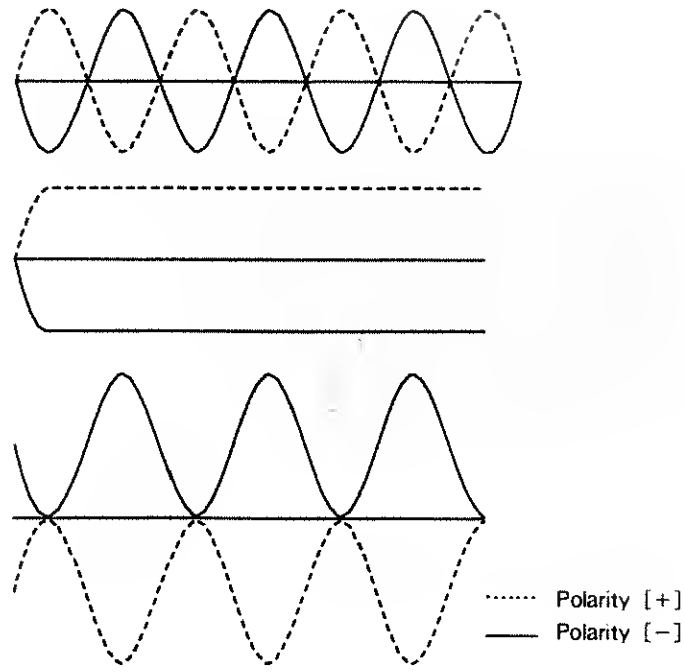
Offsat **[0 to ±50]**

The LFO wave can be moved up or down in pitch.



Polarity [+/−]

[−] setting makes reversed wave.

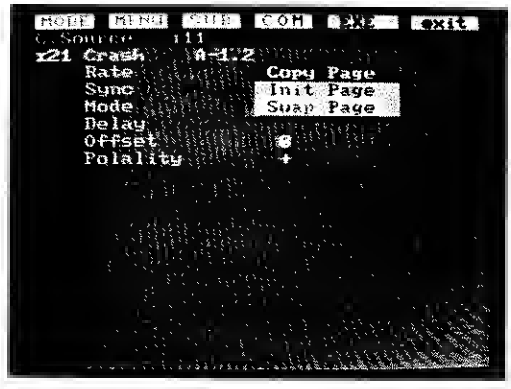


LFO Depth can be set for each Pitch modulation, TVF and TVA.

Pitch Moduletion LFO Depth →Pege 72
TVF LFO Depth →Pege 87
TVA LFO Depth→ Pege 92

[Executing the Commands]

● Initializing, Copying and Swapping Parameters

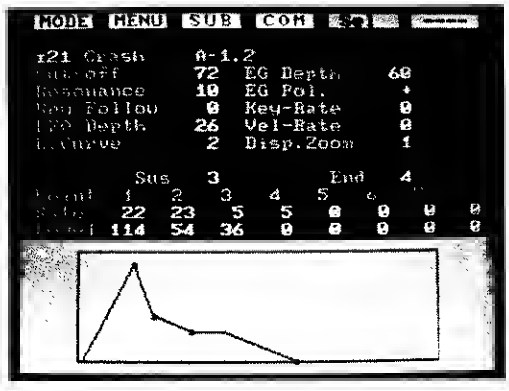


INT initializes the display's Parameters of the Tone currently called. COPY copies the Parameters of a source Tone to the Tone currently called. SWAP swaps the Parameters of a source Tone with the Tone currently called.

The contents of the Commands are exactly the same as those prepared for [Loop] menu. Refer to page 81 .

TVF

Unlike the static digital filter in the UTILITIES section, the TVF can change the tone of the sample through time.
The TVF determines the depth and the time of the effect obtained in the digital Lowpass filter. Set the Tone Parameter [TVF] to [On] (page 73) to activate the TVF.



Preperetion 1 **Push the EDIT button, or open the Mode Menu end select EDIT, to enter the Edit mode.**

Preperetion 2 **Open the Menu Window end select [TVF].**

[Calling the Tone to be edited]

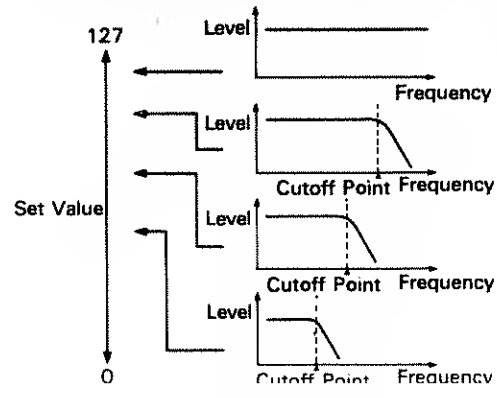
The number and the name of the selected Tone is shown at the upper left of the Display.

***Opening the Sub Menu will show the Tone List displey which you can wetch for selecting e Tone. Cell E. Source (Edit Source), then select e Tone. (See peges 37 end 38 "Tone List Displey".)**

[Setting TVF]

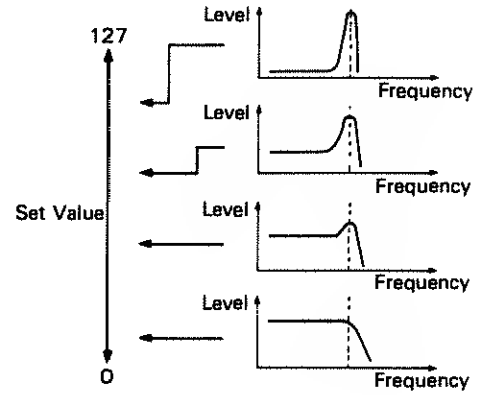
Cutoff (Cutoff Frequency) **[1 to 127]**

This sets the basic cutoff point of the TVF. As you lower the value, higher frequencies are removed and the waveform gradually become an approximation of a sine wave, then the sound will finally fade out.



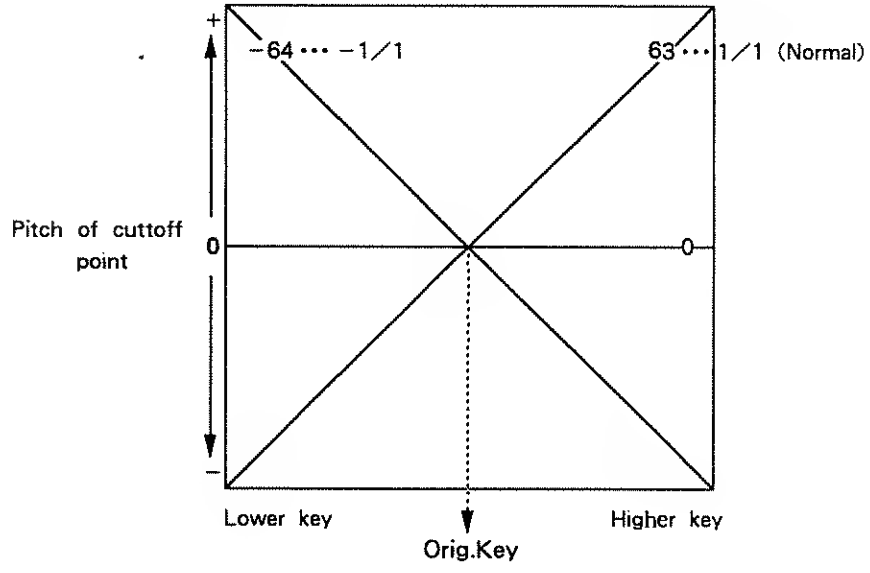
Resonance **[0 to 127]**

This boosts the cutoff point. As you increase the value, specific harmonics are emphasized and the sound will become more unusual, more electronic in nature.



Key Follow (of Cutoff Point) **[−64 to 0 to 63]**

Key Follow can change the cutoff point depending on the key played, based on the pitch of the Original key.



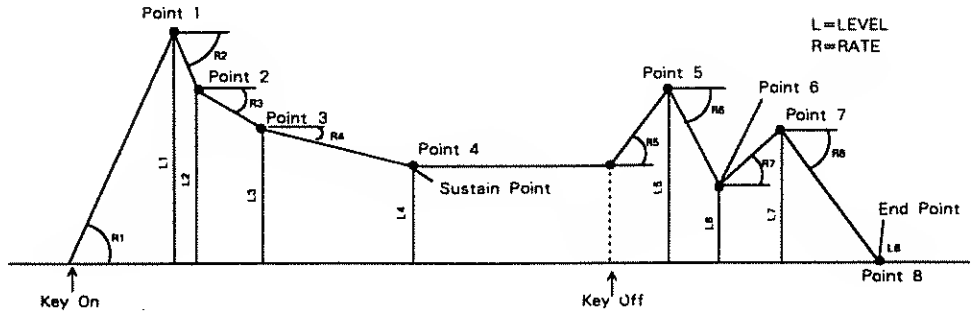
[TVF Modulation Control]

LFO Depth (TVF) **[0 to 127]**

If you wish to modulate cutoff frequencies by using the LFO, set the depth of LFO here. How the cutoff frequencies actually change is determined by the [LFO] menu.

[TVF EG Break Points]

Up to eight break points (rates and levels) can be set for making an envelope curve that controls the cutoff point of the Lowpass filter.



Rate **[1 to 127]**

This is a slide from a break point to the next one. Higher values make steeper slopes.

Level **[0 to 127]**

- This sets the cutoff point of a break point.

SUS (Sustain Point) **[1 to 7]**

This sets the cutoff point to be sustained until the key is released.

***It is not possible to set this after the end point.**

END (End Point) **[2 to 8]**

This is the end of the curve.

***It is not possible to set this before the sustein point.**

[Enlarging the Envelope Display]

Disp Zoom

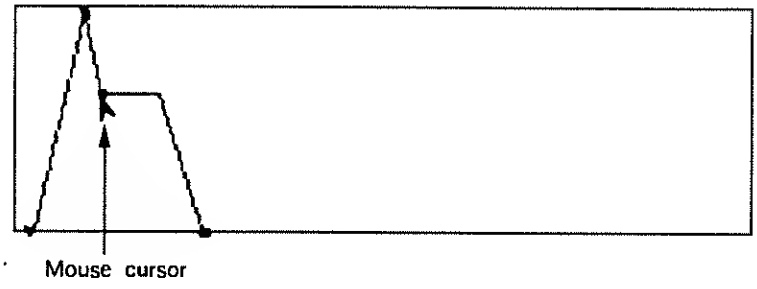
This can enlarge or diminish the envelope display in the direction of time.

[Setting Break Points with the Mouse]

Using the Mouse, you can set the Break points directly.

Preparetion **Set the Sustein point end End point.**

Step 1 **Move the cursor to the Breek point which is to be rewritten, and push the left side button on the Mouse.**



The Break point changes to red.

Step 2 **Move the cursor to the new position, end push the left side button on the Mouse again.**

If the new Break point is positioned beyond the Break points previously set, they will be moved further to the right.

Pushing the right side button on the Mouse will return the Break points to the previous positions.

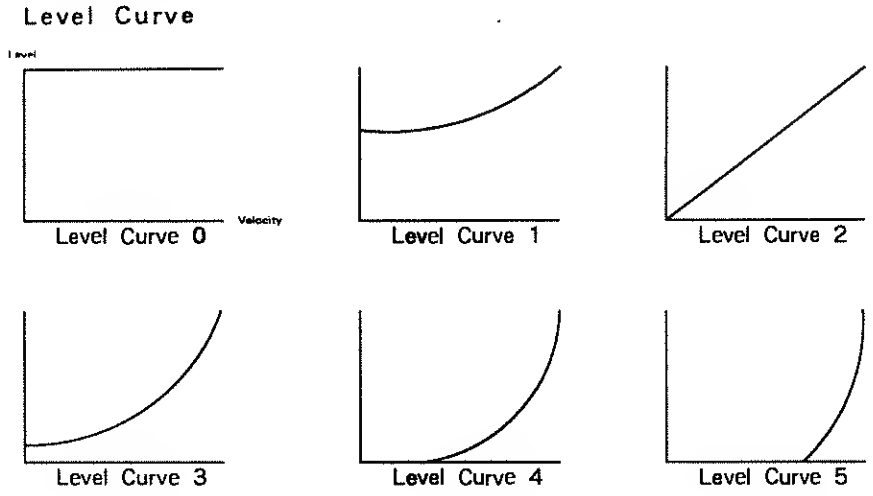
***The new Break point cannot be positioned to the left of en existing break point.**

***When you push the button on the Mouse to set e new Breek point, the set point mey be slightly different to the cursor position. This heppens because the resolution is 1/128 for Level, end 1/127 for Rete.**

[Setting TVF EG Controls]

Level Curve [0 to 5]

This curve controls the cutoff point of the envelope by the style of playing the keyboard.

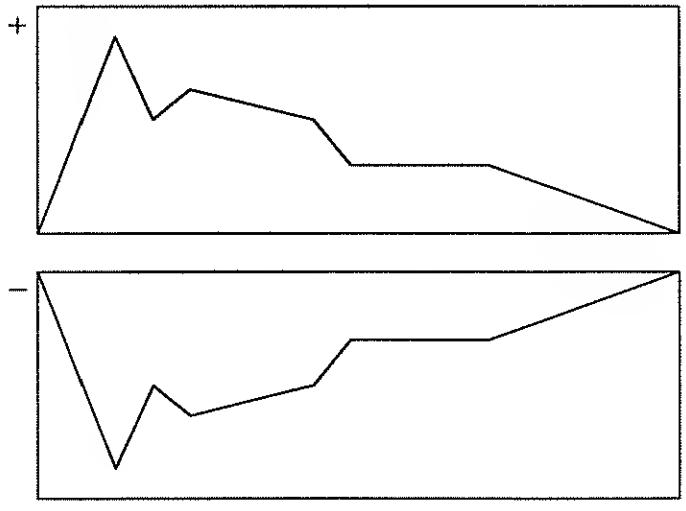


EG Depth (TVF EG Depth) [0 to 127]

This determines the depth of the envelope control on the cutoff point.

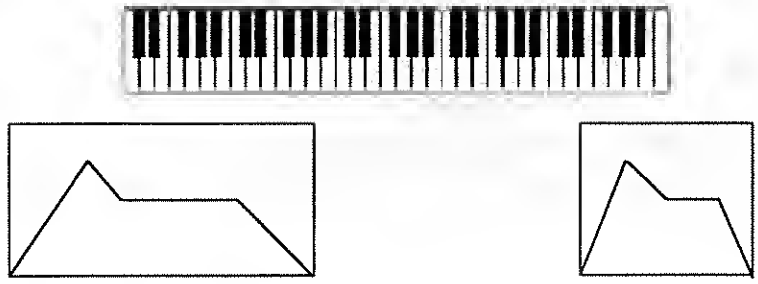
EG Pol (TVF EG Polerity) [+/−]

[−] reverses the envelope curve.



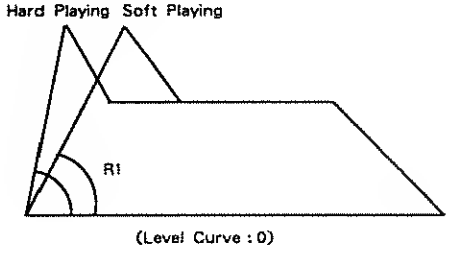
Key–Rate **[0 to 127]**

This can change the curve of the envelope depending on which key is played. Higher values make a steeper curve, and lower values a mild curve.



Vel–Rate (Velocity Rate) **[0 to 127]**

This can change R1 of the envelope curve. At higher values, the curve becomes steeper by harder playing, and at lower values, the curve is milder.



[Executing the Commands]

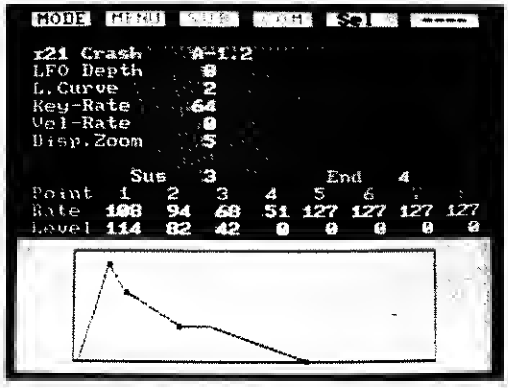
● Initializing, Copying and Swapping Parameters

INT initializes the Parameters of the Tone currently called in the Display. COPY copies the Parameters of a source Tone to the Tone currently called. SWAP swaps the Parameters of a source Tone with the Tone currently called.

The contents of the Commands are exactly the same as those prepared for [Loop] menu. Refer to page 81.

TVA

TVA contains various elements that control the volume.



Preparation 1 **Push the EDIT button, or open the Mode Menu and select EDIT, to enter the Edit mode.**

Preparation 2 **Open the Menu Window end select [TVA].**

[Calling the Tone to be edited]

The number and the name of the seleeted Tone is shown at the upper left of the Display. If you wish to edit a Tone other than the one displayed, change the Tone numbers.

***Dpening the Sub Menu will show the Tone List displey which you cen wetch for selecting a Tone. Call E. Source (Edit Source), then select a Tone. (See peges 37 and 38 "Tone List Display".)**

[Setting the TVA Modulation Control]

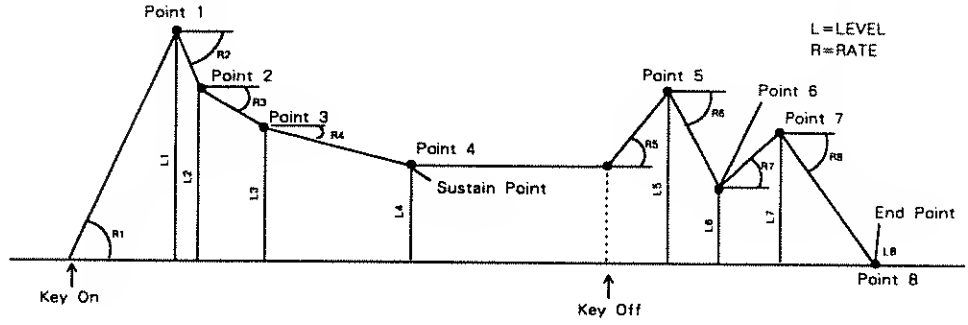
LFO Depth (TVA LFO Depth) **[0 to 127]**

If you wish to modulate volume by using the LFO, set the depth of LFO here. How the volume aetually ehanges is determined by [LFO] menu.

[TVA EG Break Points]

By setting the Break point of an envelope curve, wave data can be read (played back) in different volumes. For instance, the attack of a sound can be purposely delayed, or a decaying effect can be added to a loop. However, the volume of the sampled sound is the maximum, therefore, it is not possible to make the attack quicker than the sampled waveform, or increase the volume, or sustain a one-shot sound.

Up to eight break points (rates and levels) can be set for making an envelope curve that controls the cutoff point of the Lowpass filter.



Rate **[1 to 127]**

This is a slide from a break point to the next one. Higher values make steeper slopes.

Level **[0 to 127]**

This sets the level of a break point.

SUS (Sustain Point) **[1 to 7]**

This sets the level to be sustained until the key is released.

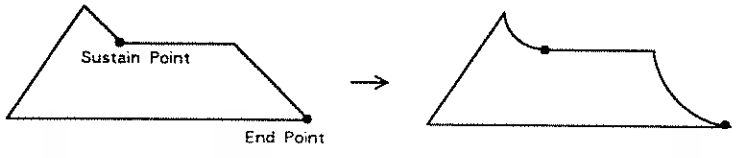
***It is not possible to set this after the end point.**

END (End Point) **[2 to 8]**

This is the end of the curve.

***It is not possible to set this before the sustain point.**

***The Rate before the Sustain point and End point actually draws an exponential curve.**



[Setting Break Points with the Mouse]

Using the Mouse, you can set the Break points directly. The necessary procedure is exactly the same as for the TVF envelope. (See page 89.)

[Enlarging the Envelope Display]

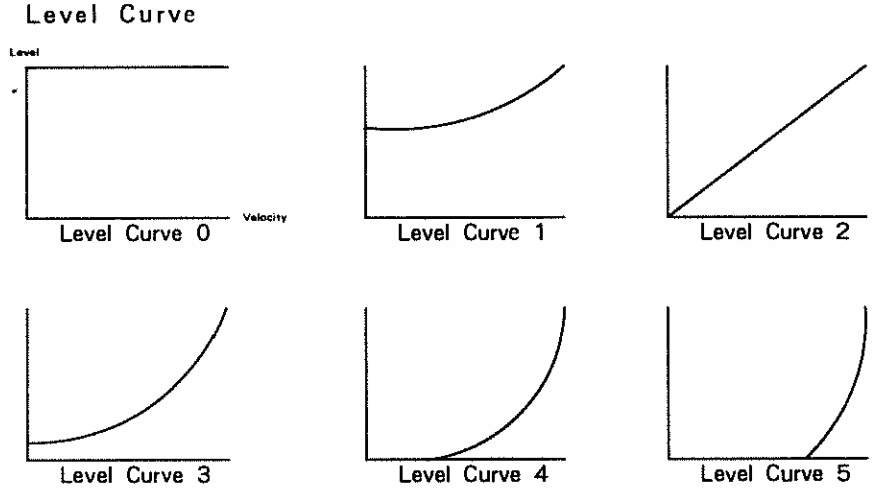
Disp Zoom

This can enlarge or diminish the envelope display in the direction of time.

[Setting TVA EG Controls]

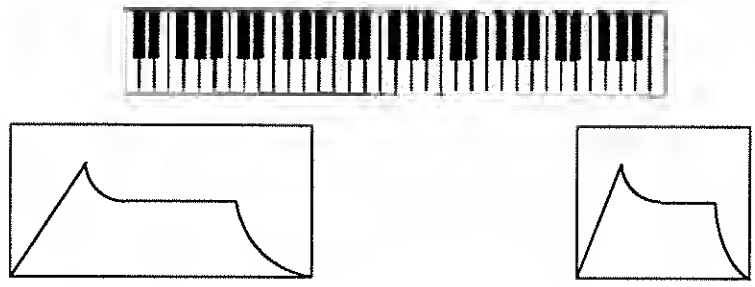
Level Curve **[0 to 5]**

This curve controls the dynamics caused by the style of playing the keyboard.



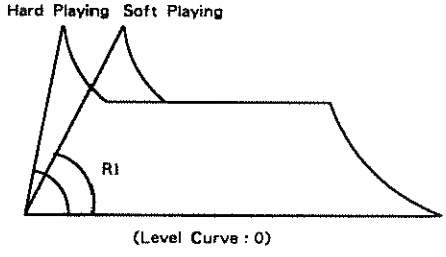
Key–Rete **[0 to 127]**

This can change the curve of the envelope depending on which key is played. Higher values make a steeper curve, and lower values a mild curve.



Vel–Rete (Velocity Rete) **[0 to 127]**

This can change R1 of the envelope curve. At higher values, the curve becomes steeper by playing harder, and at lower values, the curve is milder.



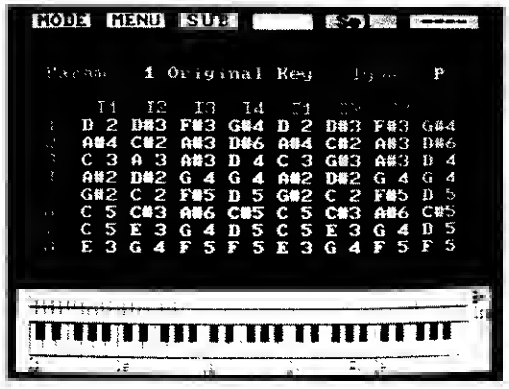
[Executing the Commands]

● Initializing, Copying and Swapping Paramaters

INT initializes the Parameters of the Tone currently called in the Display. COPY copies the Parameters of a source Tone to the Tone currently called. SWAP swaps the Parameters of a source Tone with the Tone currently called.

The contents of the Commands are exactly the same as those prepared for [Loop] menu. Refer to page 81.

Tone Map



Preperation 1 **Push the EDIT button, or open the Mode Menu end select EDIT, to enter the Edit mode.**

Preperetion 2 **Open the Menu Window end select [Tone Map].**

Call the parameter to be edited in the Display (at the upper left), and move the cursor to the Tone to be changed.

1 Original Key
2 Pitch Follow
3 Pitch Shift
4 Fine Tune
5 P. LFO Depth
6 Pitch Bender
7 After Touch
8 TVF
9 Output Assign
10 Level
11 LFO Rate
12 LFO Sync
13 LFO Mode
14 LFO Delay
15 LFO Offset
16 LFO Polarity
17 TVF Cutoff
18 TVF Resonance
19 TVF Key Fol.
20 TVF LFO Depth
21 TVF L. Curve
22 TVF EG Depth
23 TVF EG Pol.
24 TVF Key−Rate
25 TVF Vel−Rate
26 TVA LFO Depth
27 TVA L. Curve
28 TVA Key−Rate
29 TVA Vel−Rate

[Patch Play with the Tone Map]

Type (Type for Playing) [P/T]

[P] (Patch) type allows you to play the Patch currently called and edit the Tone Parameter.

When a key is played, an arrow lights up on the value of the Tone (s) assigned to that key. Depending on the direction of the arrow, you can tell which of the 1st or 2nd Tone is indicated.

◆C 5 ··· 1st Tone assigned to the KEY-ON key.
D#5◆ ··· 2nd Tone assigned to the KEY-ON key.

[T] (Tone) type allows you to actually play the Tone which is now indicated with the cursor, and edit the Tone Parameter.

5 Making a Patch

Any two of the 32 Tones in a block can be assigned to a different keyboard range. A combination of the key assignment of Tones and the performance controlling functions (Patch Parameters) makes a Patch.

Petch PRM (Satting Main Patch Paramatars) **(P.99)**

Split (Assigning Tones to Note Numbers) **(P.105)**

Patch Map (Parameter Setting with tha Patch Mep) **(P.109)**

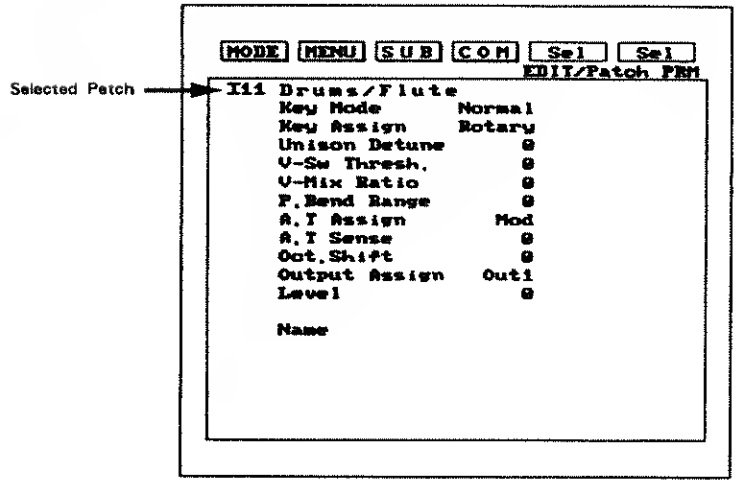
Patch PRM

In this menu, you can set the controlling performance parameters of a Patch, and open a command window for copying or swapping parameters, or initializing.

Preparation 1 **Push the Edit Button, or open the Mode Menu end select EDIT, to select the Edit mode.**

Preparation 2 **Open the Menu Window and select [Patch PRM].**

[Calling a Patch]



The Patch currently selected is shown at the upper left corner of the Display. If you wish to call a different Patch, change the numbers.

***Open the Sub Menu and select E.Source, then select e Patch to be edited. Opening the Sub Menu will show the Petch List Display which you can watch for selecting the Patch to be edited.**

[Parameter Setting]

Key Mode

One of the following five Key Modes can bc selected.

The S−550 allows you to assign two Tones (the 1st and 2nd Tones) to any key you like in the Split Set display (page 105). The Key mode selection can also be done in the Split Set display.

***In any Key mode, each Tone will sound with a set level curve (see page 94) depending on how hard you play the kay.**

[Normal]

The S−550 sounds the 1st Tone assigned.

[Unison]

The S−550 sounds the 1st Tone assigned (two modules). It is possible to detune one of the sounds slightly.
In this mode, the possible sounding voices are half of the Normal mode.

[V−SW] (Velocity Switch)

The S−550 sounds the 1st or 2nd Tones assigned.
Playing the key harder than a certain level (=Velocity Switch Threshold) will sound the 2nd Tone, weaker will sound the 1st Tone.

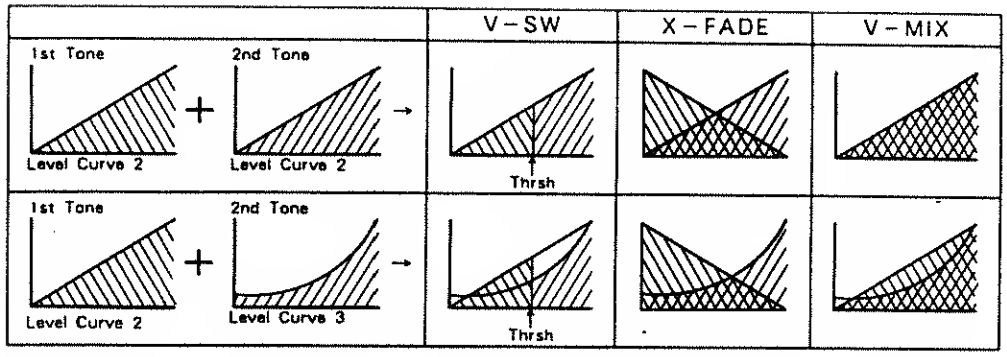
[X−Fade] (Velocity Cross Fade)

The S−550 sounds the 1st and 2nd Tones assigned.
Depending on how hard you play the key, the volume balance of the 1st and the 2nd Tones differs. The level curve of the 1st Tone is inverted.
In this mode, the possible sounding voices are half of the Normal mode.

[V−MIX] (Velocity Mix)

The S−550 sounds the 1st and 2nd Toncs assigned.
The 1st and the 2nd Tones are played simultaneously.
In this mode, the possible sounding voices are half of the Normal mode.

***For playing in starao, such as e compact disk, leser disk or DAT, you must sample right and left saparately, metch the stert points, than play in the V−Mix mode. You should set the Patch Paramatar, [Output Assign], so that each Tone is separetely output from tha assignad output jack. This way, the 1st and 2nd Tonas ara sent separetely.**



Key Assign **[Rotery/Fix]**

When the S-550 receives a sequence of Note messages, it plays different voice modules sequentially. However, if set to [Fix], the S-550 plays the same module only when receiving the Note messages of the same number. In other words, [Fix] plays the next sound without keeping the previous decaying sound, and therefore can be effective for creating the nuance of a percussive trill effect.

Unison Detune **[-64 to 63]**

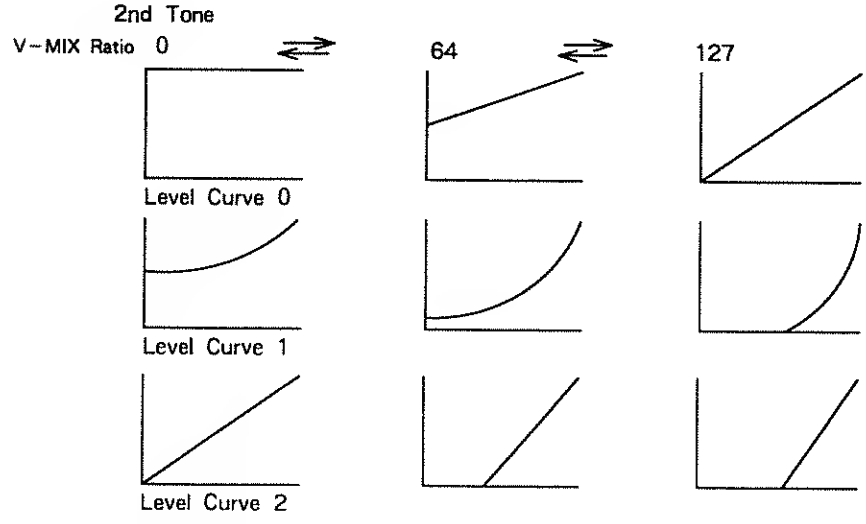
When the Unison Key Mode is selected, one of the sounds can be slightly detuned. 50 is roughly half of a semi-tone.

V-SW Thresh (Velocity Switch Threshold) **[0 to 127]**

When the V-SW Key Mode is selected, this determines the threshold level for the two Tones. Higher values require harder playing to sound a different Tone.

V-MIX Retio (Velocity Mix Retio) **[0 to 127]**

When the V-MIX Key Mode is selected, the level curve of the 2nd Tone can be changed as shown in the picture. At zero, the volume obtained is exactly as in the set level curve.



P. Bend Renge **[0 to 12]**

This sets the maximum pitch alteration causcd by moving the bender/ modulation lever to the right or left extremes. Each numbcr rcpresents a semi−tone ; 2 is major 2nd, 3 is minor 3rd, 4 is major 3rd, 7 is perfect 5th and 12 is one octave.

***Remember that the pitch cannot exceed the original pitch by more than 2 octaves, this applies to the pitch bend lever as well.**

***If you wish the S−550 to receive Bender and Bend Range messeges, sat tha Receive Switch of [Bend] and [B.Rng] to [On] in the [Message] menu In the MIDI mode.**

A.T. Assign (Aftertouch Assign)

This can select one of the following four effects caused by Aftertouch.

***Aftertouch is the affect obtained on the MIDI keyboard that features the aftertouch function by pushing the key harder after playing it in e normal menner.**

***If you wish tha S−550 to receive Aftertouch messeges, set the Receive Switch of [A.T] to [On] in the [Massage] menu in the MIDI mode.**

[P.Mod] (Moduletion)

Aftertouch controls the vibrato effect.

[Volume]

Aftertouch controls the volume of the sound.

[Bend +] (Bend Up)

Aftertouch increases the pitch of the sound.

[Bend −] (Bend Down)

Aftertouch lowers the pitch of the sound.

***Tha pitch bend range of Bend + end Bend − is determined by both A.T. Sense and Bend Range.**

A.T. Sense (Aftertouch Sensitivity) **[0 to 127]**

This sets the sensitivity of the aftertouch effect. At 127, the effect is at its maximum.

Oct Shift (Octeve Shift) **[−2, −1, 0, 1, 2]**

This can shift the pitch of the entire keyboard from −2 to 2 octaves in an octave step.

Output Assign (Assignment of the Output Jecks) **[Out 1 to Out 8, Tone]**

[Out 1] to [Out 8]: The Patch currently in use is sent out from the selected output jack (1 to 8).

[Tone]: Tones are sent out from the output jacks separately as set with the relevant Tone Parameter in each Tone.(Page 73)

***In the [Tone] mode, the maximum number of voices to be output is decreased.**

***This Patch Paremeter can be edited even in the Play mode.**

Level (Petch Level) **[0 to 127]**

This can set the output level of each Patch separately. At 127, each Tone assigned to the Patch is played at its set level.

Neme (Petch Name)

Up to 12 letters can be used for naming a Patch.

***You cen use the Ten Key Pad instaad of the Mouse. Pushing a Number key will call a letter in the sequence as shown below.**

1	→A→B→C	7	S→T→U→
2	→D→E→F	8	→V→W→X
3	→G→H→I	9	→Y→Z→/
4	→J→K→L	0	→+→−→×
5	→M→N→O	ENT	Space
6	→P→Q→R		

[Executing the Commands]

In this menu, you can initialize the Parameters of the Patch currently called, copy the Parameters of another Patch, or swap.

Open the Sub Manu and select C.Source, then select a source Patch to be copied or swapped. Opening the Sub Menu will show the Patch List Display which you can watch for selecting the Patch to be edited.

Opening the Command Window will show the selected source Patch on the Message Line.

Copy All This copies all the parameters included in the source Patch to the selected Patch.

Copy Page Only the parameters of the source Patch shown in this Display are copied to the selected Patch.

Init ALL This initializes all the parameters of the selected Patch.

Init PAGE This initializes only the parameters of the selected Patch shown in this Display.

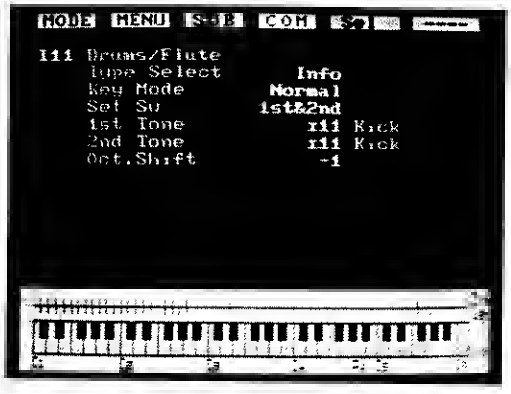
☞**The default values of the parameters are shown on page 114.**

Swap ALL This swaps all the parameters of the selected Patch with those of the source Patch.

Swap Page Only the parameters of the selected Patch shown in this Display are swapped with the source Patch.

Split

Tones in each Patch can be assigned to the Note Numbers you like.



Preparation 1 **Push the Edit Button, or open the Mode Menu and select EDIT, to select the Edit mode.**

Preparation 2 **Open the Menu Window end select [Split].**

[Calling a Patch to be edited]

The Patch currently selected is shown at the upper left corner of the Display. If you wish to call a different Patch, change the numbers.

***Dpen the Sub Menu and select E.Source, then select a Patch to be edited. Dpening the Sub Menu will show the Patch List Display which you cen watch for selecting the Patch to be edited.**

[Split Set or Monitor]

Type Select **[Info/Set]**

If you wish to monitor the Tone assignment to the Note numbers you have made, select [Info], and to actually assign Tones to Note numbers, select [Set].

[Check and change of the Key Mode]

Key mode

The Key mode of the Patch currently used can be checked and changed.

■ In the Normel or Unison Key Mode

The 1st Tone assigned is played in the Key Mode currently selected. The 2nd Tone is irrelevant for the performance.

■ In the V−SW, X−Fade or V−MIX Key Mode

Both the 1st and the 2nd Tones assigned are played in the current Key Mode.

***In the lower part of the Display (keyboard indication), Split Points are shown as verticel lines.**

[Monitoring Tone Assignment (Info)]

When [Info] Type is selected, you can monitor the Tones (1st and 2nd Tones) assigned to each key.

○ Monitor by receiving Key On messeges

The Tone numbers and names of the 1st and 2nd Tones assigned to the reccived Key Number can be monitored.

○ Monitor by indiceting the key in the Displey with Mouse

Indicate the key in the Display with the Mouse, then push the left side button on the Mouse, and the Tone numbers and names of the 1st and 2nd Tones assigned can be monitored.

***To return the cursor to the position whara the Paramaters are indiceted, push the right side button on the Mouse.**

[Tone Assignment] (Set)

When [Set] Type is selected, you can actually assign the Tones (1st and 2nd Tones) to each key.

Set Sw **[1st&2nd, 1st, 2nd, Off]**

Two Tones, the 1st and 2nd Tones are assigned to each key. To change the assignment of both Tones, select [1st&2nd], to change only the 1st Tone, select [1st], and to change only the 2nd Tone select [2nd]. When [Off] is selected, no sound is heard.

1st Tone **[I 11 to II 48]**

Call the 1st Tone to be assigned in the Display.

2nd Tone **[I 11 to II 48]**

Call the 2nd Tone to be assigned in the Display.

○Assigning the Tone by receiving Key On messeges

When the Key On messages are received, the Tone is assigned to the corresponding Key number. When a MIDI keyboard is connected, the Tone is assigned to the keys pressed, the sound of the new Tone just essigned is heard.

○Assigning the Tone by indiceting the key in the Displey with the Mouse

Indicate the key in the Display with the Mouse, then push the left side button on the Mouse, and the tone is assigned to that key.

***To return the cursor to the position where the Perameters are indicated, push the right side button on the Mouse.**

[Octave Shift of the Display]

Oct Shift **[−2, −1, 0, 1, 2]**

The S−550 can be played from C0 to C9.(The highest pitch, however, is two octave above the Original Key). When the keyboard is in the normal condition (without OCTAVE SHIFT), the pitch range of the keyboard shown in the Display is C2 to C7. Using the Octave Shift function, you can shift the keyboard up to ±2 octaves.

[Executing the Commands]

In this menu, you can initialize the Parameters of the Patch for split setting currently called, copy the Parameters of another Patch, or swap.

***Open the Sub Menu and select C.Source, then select e source Patch to be copiad or swapped. Opening the Sub Menu will show the Patch List Display which you cen watch for selecting the Patch to be edited.**

Opening the Command Window will show the selected source Patch on the Message Line.

Copy Page

Only the parameters of the source Patch shown in this Display are copied to the selected Patch.

Init PAGE

This initializes only thc paramcters of the selected Patch shown in this Display.

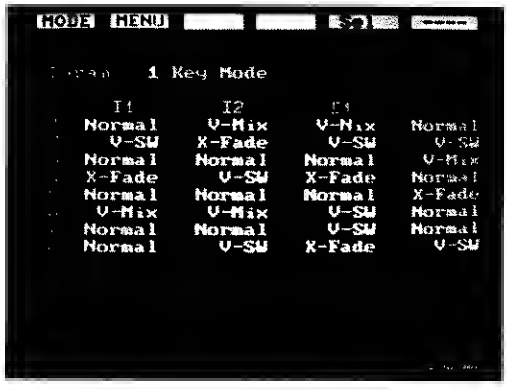
☞The defoult values of the perameters are shown on page 114.

Swap Page

Only the parameters of the sourcc Patch shown in this Display are swapped with the selected Patch.

Patch Map

In this menu, you can call each one of the Patch Parameters and set the values of all Patches.



Preparation 1 **Push the Edit Button, or open the Mode Menu and select EDIT, to select the Edit mode.**

Preparation 2 **Open the Menu Window and select [Patch Map].**

Call the parameter you wish to edit at the upper left corner of the Display, then move the cursor to the value of the parameter and change it.

1 Key Mode
2 Key Assign
3 Unison Detune
4 V-Sw Thresh
5 V-Mix Ratio
6 P. Bend Range
7 A.T Assign
8 A.T Sense
9 Output Assign
10 Level

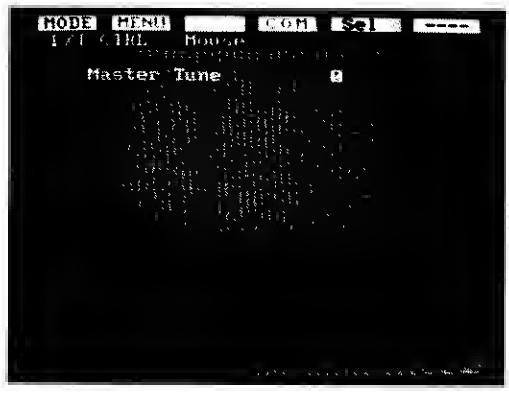
6 S−550's Function Mode

The Function mode allows you to set the basic functions of the S−550 and initialize the Parameters other than the Tone Parameters.

Mastar (Satting tha Functions of the S−550) **(Page 111)**

Initializa (Initializing Paremeters) **(Paga 114)**

Master



Preperetion 1 **Push the FUNC button, or open the Mode Menu end select FUNC. to cell the Func mode.**

Preperetion 2 **Open the Menu Window end select [Mester].**

[Setting the Master Tune]

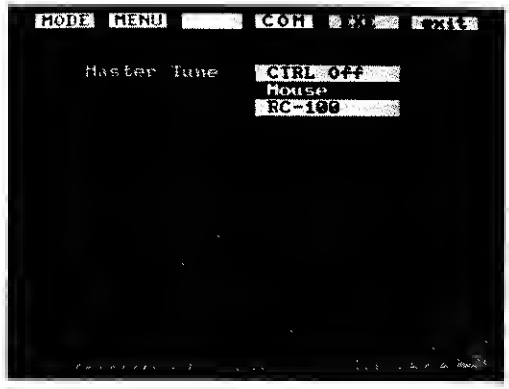
Mester Tune **[−64 to 0 to 63]**

This does the overall tuning of the S−550. At zero, the pitch of the sound is exactly the same as set with the relevant Tone Parameters.

[Selecting the Controller Mode]

The S−550 cen be controlled with the buttons on the penel, the supplied Mouse or the optional controller RC−100. Oepending on the controller you use, the functions to be used on the S−550 differ. Therefore, it is necessery to set the appropriete Controller mode depending on which of the controllers you use.

To use the Mouse or RC−100, open the Commend Window, then connect the unit to the S−550. Also, when changing the connected devices, such es disconnecting the Mouse for connecting the RC−100, be sure to open the Commend Window before chenging connections.



The Commend Window shows the following commends.

PROCEDURE

■When using the S-550 on its own

[CTRL OFF]

Step 1 Select [OFF].

The Display shows "Don't Connect EXT CTRL".

Step 2 Meke sure thet nothing is connected to the EXT CTRL jeck.

Step 3 Push the EXECUTE button on the S-550 (the Commend Window closes), end the S-550 cen be opereted with the buttons on its front penel.

■When connecting the Mouse to the S-550

[Mouse]

Step 1 Select [Mouse].

The Display shows "Connect Mouse to EXT CTRL".

Step 2 Connect the Mouse to the EXT CTRL jeck.

Step 3 Push the EXECUTE button on the S-550's penel (the Commend Window closes), end the S-550 cen be controlled with the Mouse.

■When connecting the RC−100 to the S−550

[RC−100]

Step 1 Select [RC−100].

The Display shows "Connact RC−100 to EXT CTRL. And push RESET On RC−100".

Step 2 Connect the RC−100 to the EXT CTRL Jack.

Step 3 If you wish to use the Mousa, connect tha suppliad Mouse to the EXT CTRL jack on the RC−100.

*Do not connect or disconnect the Mouse while the RC−100 is being operated.

Step 4 Push the RESET button.

Step 5 Push the EXECUTE button on tha S−550 (the Command Window closas), and tha S−550 can be controlled with the RC−100.

NOTE

If the [Mouse] or [RC−100] mode is selacted but neither the Mouse nor the RC−100 is connected to the S−550, the S−550 does not operete properly with the buttons on its panel.

It is possible to perform this Controllar mode selection at power−up. See pege 23.

Initialize

This resets the parameters to the default values.

Preperetion 1 **Push the FUNC button, or open the Mode Menu and select FUNC, to call the Func mode.**

Preparation 2 **Open the Menu Window and select [Initialize].**

The default values of the parameters are shown in the table below.

● Tone Parameter

Original Key ····· C5
Pitch Follow····· On
Pitch Shift ····· 0
Fine Tune····· 0
P. LFO Oepth····· 0
Pitch Bender ····· On
Afeter Touch ····· On
TVF····· On
Output Assign····· 1
Level ·····127
LFO Rate·····88
LFO Sync ····· On
LFO Mod·····Sin
LFO Oelay ····· 0
LFO Offset ····· 0
LFO Polerity····· +
TVF Cutoff·····127
TVF Resonance ····· 0
TVF EG Sustain····· 2
TVF EG End····· 3
TVF EG Rate 1 ·····127
TVF EG Level 1 ·····127
TVF EG Rate 2 ·····127
TVF EG Level 2 ·····127
TVF EG Rete 3 ·····127
TVF EG Level 3 ····· 0
TVF EG Rate 4 ·····127
TVF EG Level 4 ····· 0
TVF EG Rate 5 ·····127
TVF EG Level 5 ····· 0
TVF EG Rate 6 ·····127
TVF EG Level 6 ····· 0
TVF EG Rate 7 ·····127
TVF EG Level 7 ····· 0
TVF EG Rate 8 ·····127
TVF EG Level 8 ····· 0
TVF Key Fol.····· 0
TVF LFO Oepth····· 0
TVF L.Curve ····· 2
TVF EG Oepth····· 0
TVF EG Pol. ····· +
TVF Key-Rate ····· 0
TVF Vel-Rate ····· 0
TVA EG Sustain ····· 2
TVA EG End ····· 3
TVA EG Rate 1 ····· 127
TVA EG Level 1 ····· 127
TVA EG Rate 2 ····· 127
TVA EG Level 2 ····· 127
TVA EG Rate 3 ····· 127
TVA EG Level 3 ····· 0
TVA EG Rate 4 ····· 127
TVA EG Level 4 ····· 0
TVA EG Rate 5 ····· 127
TVA EG Level 5 ····· 0
TVA EG Rate 6 ····· 127
TVA EG Level 6 ····· 0
TVA EG Rate 7 ····· 127
TVA EG Level 7 ····· 0
TVA EG Rate 8 ····· 127
TVA EG Level 8 ····· 0
TVA LFO Oepth ····· 0
TVA L. Curve ····· 2
TVA Key-Rate ····· 0
TVA Vel-Rate····· 0

● Patch Parameter

Key Mode····· Normal
Key Assign·····Rotary
Unison Detune ····· 0
V-Mix Ratio ····· 0
P. Bend Range ····· 2
A. T. Assign·····P.Mod.
A. T. Sense····· 0
Oct. Shift ····· 0
Output Assign····· Out1
Level ·····127
Neme ····· Space
Split (Common for the entire keyborad)
1st Tone·····11
2nd Tone·····11

● Function Parameter

Voice Mode ····· Auto
RX-CH ·····1~8
Patch····· I 11~18
Level ·····127
Master Tune ····· 0
EXT CTRL ·····Mouse

● MIOI Parmeter

RX-CH ·····1~8
P. Chg ····· On
Bend····· On
B. Rng·····Off
Mod ····· On
Hold ····· On
A. T ·····Off
Vol. ·····Off
Exclusive·····Off
Device IO····· 1
Prog # (I 11~II 28)
·····1~32

The following commands are prepared for selecting which parameters are to be initialized.

[Init **Patch I**]

This initializes all the Patch parameters in Block I.

[Init **Patch II**]

This initializes all the Patch parameters in Block II.

[Init **FUNC**]

This initializes the parameters set in the Function mode.

[Init **MIDI**]

This initializes the parameters set in the MIDI mode.

7 MIDI Setting and Monitoring Receive Messages

This mode allows you to set the MIDI parameters or monitor the received MIDI messages.

Messege (Setting MIDI Receive Chennels end Receive Switches) **(Pege 117)**

Prog. No. (Setting Progrem Chenge Numbers) **(Pege 119)**

Monitor (Monitoring MIDI Messages) **(Pege 120)**

Message

In this menu, you can set how the MIDI messages in each voice group are received by the S−550.

Preparetion 1 **Push the MIDI button, or open the Mode Menu and select MIOI to select the MIDI mode.**

Preparation 2 **Open the Menu Window end select [Message].**

[Setting MIDI Receive Channel]

RX−CH (Receive Chennel) **[1 to 16, Off]**

This sets the receive channel. When set to [Off], no MIDI messagc is received. This Parameter can be set in the Play mode.

[MIDI Receive Switch]

P.Chg (Progrem Chenge) **[On/Off]**

This sclccts whether to receive the Program Change messages or not.

***When this is set to [On], the Program Chenge messeges sent from an external device select Patches on the S−550. How the Petch numbers correspond with the Program Change numbers can be set in [Prog #] menu.**

Bender **[On/Off]**

This sclects whether to receive the Bender messages or not.

Bend Renge **[On/Off]**

This sclects whether to receive the Bend Range (Control Changc RPC No.0) messages or not.

Mod.(Moduletion) **[On/Off]**

This sclects whethcr to receive the Modulation (Control Change No. 1) messagc or not.

Hold **[On/Off]**

This selects whether to receive the Hold (Control Change No.64) messages or not.

A.Touch (Aftertouch) **[On/Off]**

This selects whether to receive the Aftertouch messages or not.

Volume **[On/Off]**

This selects whether to receive the Volume (Control Change No.7) messages or not.

[System Exclusive]

Data strored in the S−550's internal memory can be transferred via Roland MIDI System Exclusive messages.

Exclusive **[On/Off]**

This selects whether or not to transfer data using the System Exclusive.

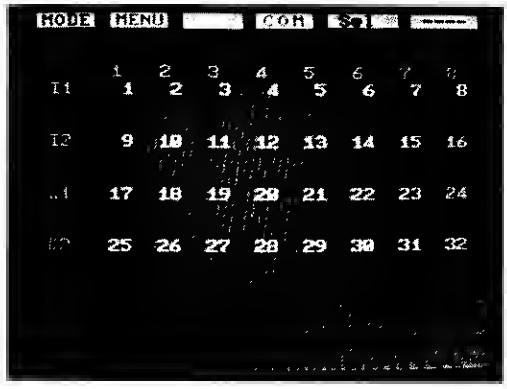
Device ID **[1 to 16]**

Before transferring data, match the number of the Device ID on the relevant devices.

***See MIDI Implimentation at the back of this manual.**

Prog. Number

This sets how each Program Change number corresponds to a Patch number from 1 to 128.



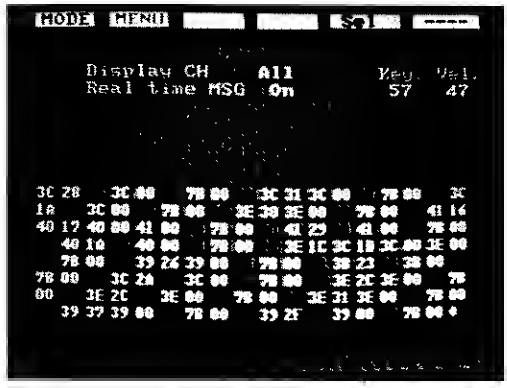
Preparation 1 **Push the MIDI button, or open the Mode Menu and select MIDI to select the MIDI mode.**

Preparation 2 **Open the Menu Window and select [Prog #].**

***Be careful not to assign the same Program Change number to more than one Patch. If so, the smaller Patch number in Block I will be given priority.**

Monitor

In this menu, MIDI messages received at the MIDI IN Connector are displayed in real time as hexadicimal data.



Preparation 1 **Push the MIDI button, or open the Mode Menu and select MIDI to select the MIDI mode.**

Preperation 2 **Open the Menu Window and select [Monitor].**

Displey CH (Chennel to be monitored) **[1 to 16, ALL]**

This parameter assigns the channel which you wish to monitor. With [ALL], messages of all channels can be monitored.

Reel Time MSG (On/Off of reel time messeges) **[On/Off]**

By setting this to [On], real time messages can also be displayed.

Red Number·····Status

White Number·····Oete

See "MIDI Implementation" at the back of the manual to study the contents of Status and Data.

8 Loading Data From a Disk

The Disk mode allows you to load the data saved on a disk into the S−550, or call the directory of the data stored on the disk.

Load (Loading the entire data) **(Page 122)**

Load P. PRM (Loading a Patch) **(Page 126)**

Load Tone (Loading a Tone) **(Page 128)**

DIR Patch (Directory of Patch Names on a disk) **(Page 130)**

DIR Tone (Directory of Tone Names on a disk) **(Page 130)**

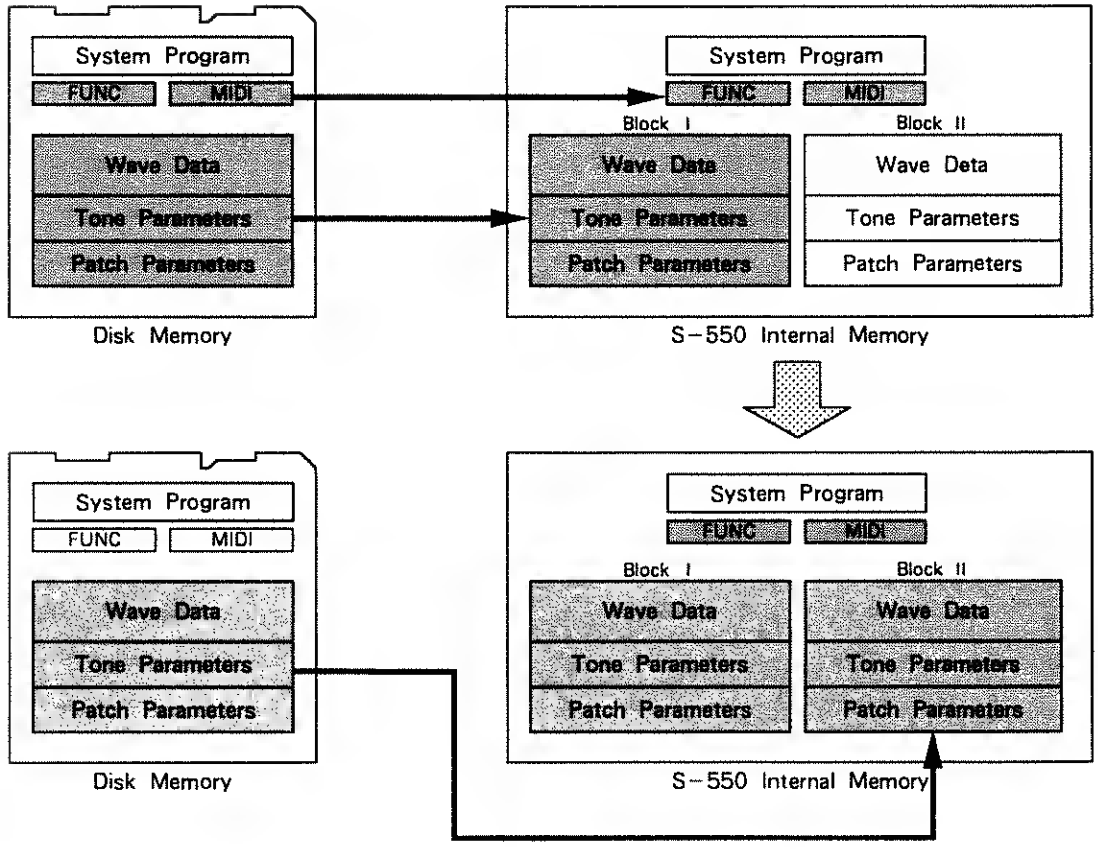
Load

The entire data saved on a disk can be loaded into the internal memory of the S-550.

Preparetion 1 **Push the DISK button, or open the Mode Menu end select DISK, to call the Disk mode.**

Preperation 2 **Open the Menu Window and select [Load] to open the Command Window.**

Load Chain This command can load data from two disks continuously (Chain Load).



Executing the Chain Load

Step 1 **Insert e disk that conteins the date to ba loeded into Block I.**

Stap 2 **Salact [Loed Chein], than push the EXECUTE button or the left side button on the Mousa.**

"NOW LOAOING" is shown on the Message Linc, and thc disk label of thc disk which is eurrently being loaded is shown in thc middlc of thc Display.

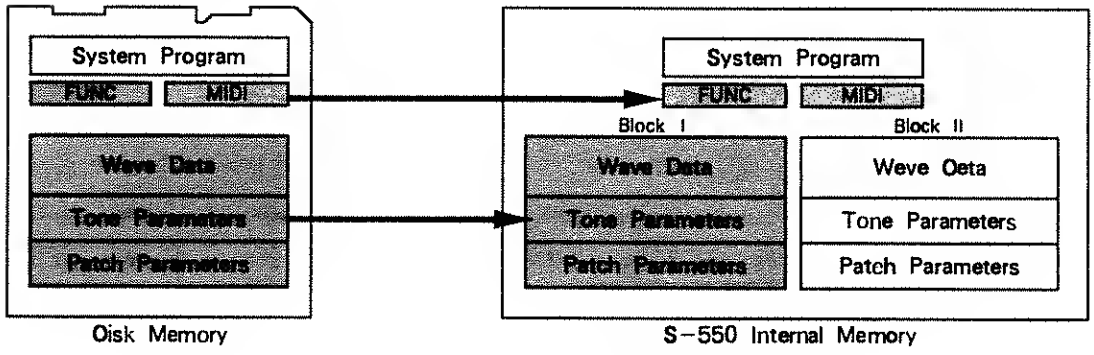
Whcn the number eounts down to 00, and **"Chenge Next Disk"** is shown on the Mcssage Line, push the Ejeet Button and remove the disk, thcn insert thc disk that contains the data to be loaded into Block II.

***If you wish to stop loading here, push the CDMMAND button on the S−550.**

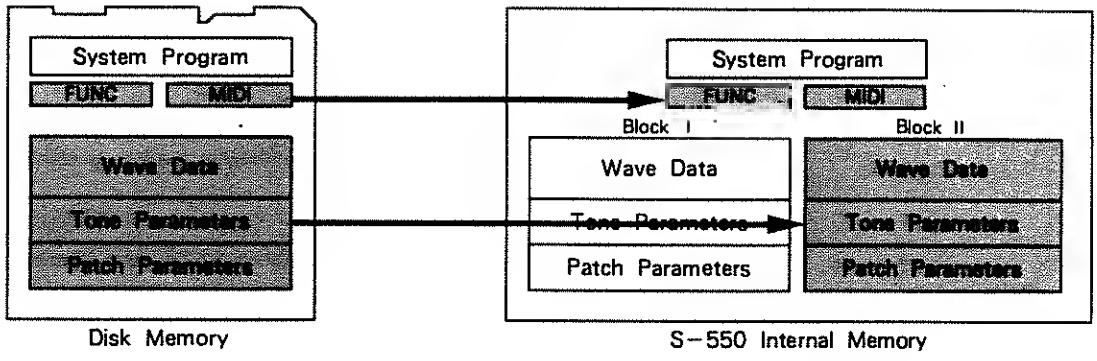
Inscrting thc disk will automatically start loading, and **"Now Loeding"** is shown on the Message Line. The disk label of thc disk which is currcntly being loaded is shown in the middle of thc Display.

When thc number counts down to 00, and **"Complete"** is shown on the Mcssage Line, loading is completed.

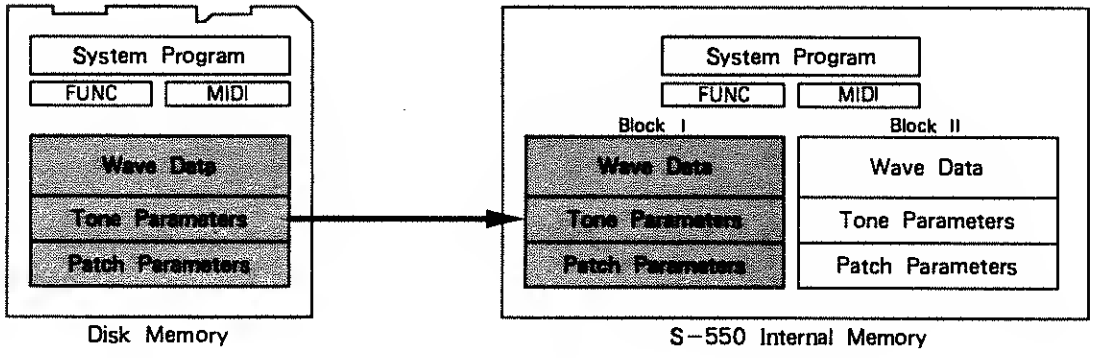
Load Set I This loads the entire data of one disk. Bloek data is rcad into Block I.



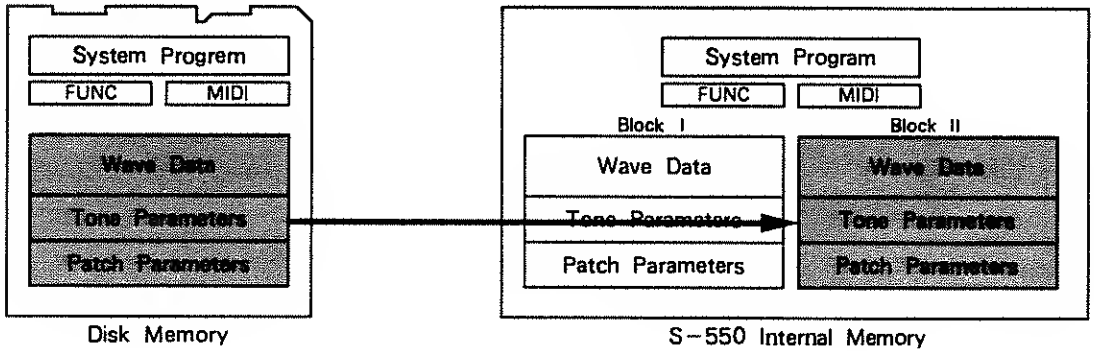
Loed Set II This loads the entire data of one disk. Block data is read into Block II.



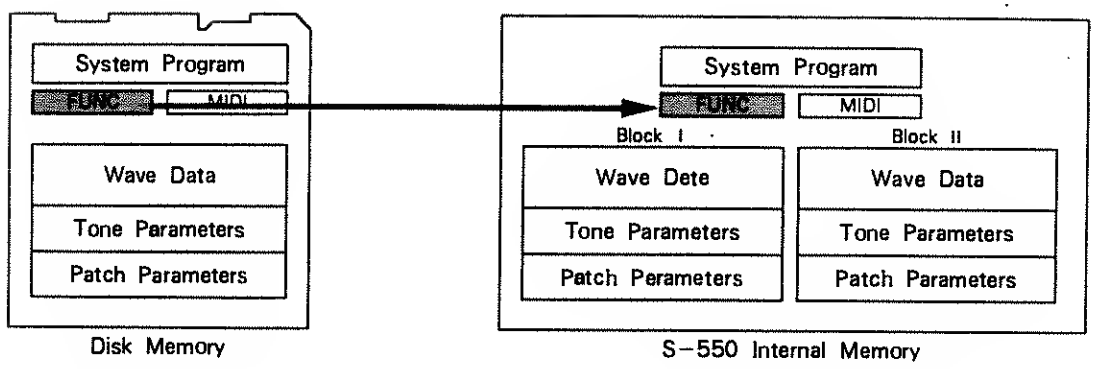
Loed BL I This loads only Block data of a disk to Block I.
The Display shows Load BL I.



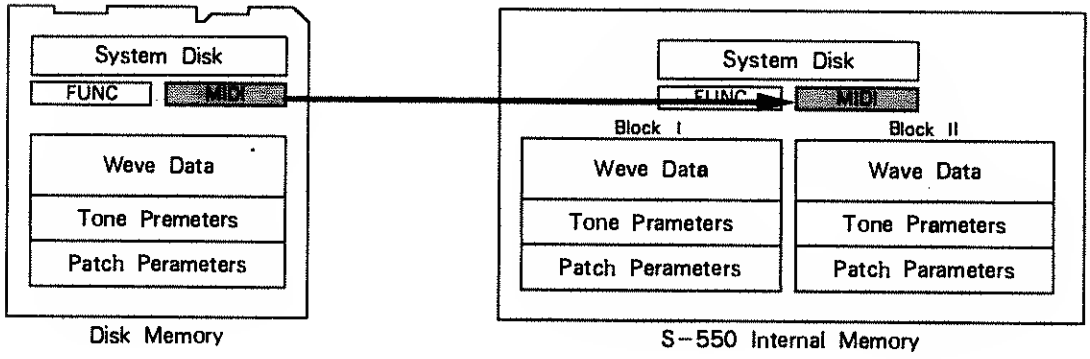
Load BL II This loads only Block data of a disk to Block II.
The Display shows Load BL II.



Load Func This loads only Function data (Parameters set in the Play and Func mode) of a disk.



Load MIDI This loads only MIDI data (Parameters set in the MIDI mode).



Executing Loading

Step 1 **Insert the disk that conteins the dete to be loeded.**

Step 2 **Salect the Commend you wish to execute, then push the EXECUTE button or the left side button on the Mouse.**

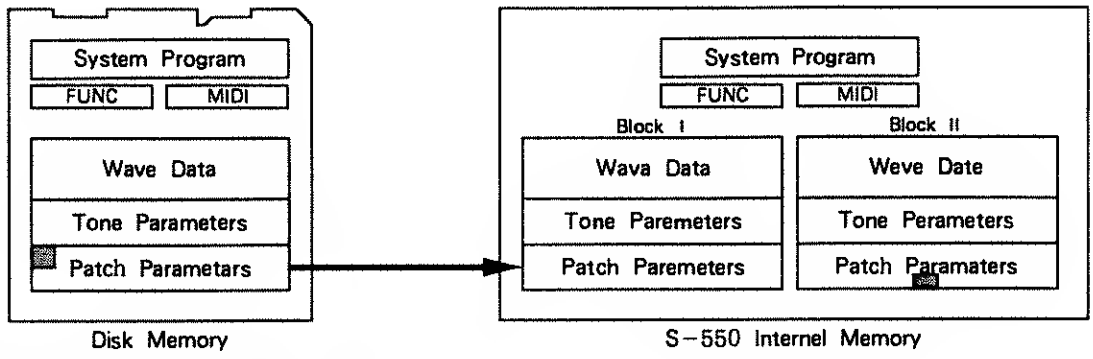
"Now Loading" is shown on the Message Linc.

When Block data is being loaded, the disk label of the disk which is currently being loaded is shown in the middle of the Display.

When the number counts down to 00, and **"Complete"** is shown on the message linc, loading is completed.

Load P. PRM

Any one of the Patches (Only Patch Parameters) saved on a disk can be loaded into the S−550.



Preperetion 1 **Push the DISK button, or open the Mode Menu and select DISK to call the Disk mode.**

Preperetion 2 **Open the Menu Window and select [Loed P.PRM].**

Disk

Open the Sub Menu, select DISK, then select which Patch on the disk is to be loaded.

＊Always open the Sub Menu every time you chenge disks, otherwise, the Display may be showing the Petch nemes previously loaded.

Internel

This parameter assigns the Patch Number of the destination Patch in the internal memory.

***Opening the Sub Menu will show the Patch List of the internal memory which you can watch for selecting a destination Patch number.**

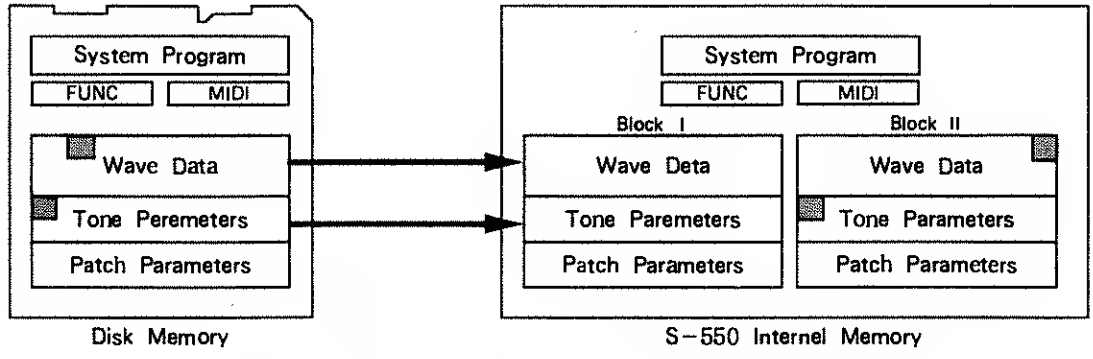
Step 1 **Insert e disk into the Disk Drive.**

Step 2 **Open the Commend Window, then push the EXECUTE button or the left side button on the Mouse.**

When finished, **"Complete"** is shown on the message line.

Load Tone

You can select any one of the Original Tones saved on a disk, and load the Wave data and the Tone Parameters of that Tone into the S−550.



Preperetion 1 **Push the DISK button, or open the Mode Menu end select DISK to cell the Disk mode.**

Preperetion 2 **Open the Menu Window and select [Load Tone].**

Disk

Open the Sub Menu, select DISK, then, watching the Tone List display, select which Tone on the disk is to be loaded. (See "Tone List Display" on pages 37 and 38.)

***Always open the Sub Menu every time you chenge disks, otherwise, the Displsy may be showing the Tone nemes previously losded.**

Internal

This selects a Tone number where the loaded data is to be written. Any of the 64 Tone numbers can be selected.

If a Sub Tone is selected as a destination, the loaded Wave is written into it, and it therefore becomes an Original Tone.

When an Original Tone is selected as a destination, the following will occur in the S−550.

○The previous Wave data is erased making a space (=increesing the Remaining Time)

○The loaded Wave data is written into the empty spece in the selected Wave Bank.

○The loeded Tone Peremeters ere copied.

○A Sub Tone that uses the erased Wave data is deleted, becoming an unused Tone.

[Selecting the Wave Bank of the Destination Tone]

Wave Bank [A/B]

The new Wave Data is written in the Wave Bank of the same Block as the selected destination Tone. Here, select Bank A or B.

[Checking the Remaining Space for Writing]

When there is no space left for sampling in the destination Wave Bank, **"Not Execute"** is shown when you try to execute, and writing cannot be executed. When the remaining space is insufficient for sampling, the excess will be ignored, therefore the Wave data will be cut.

***The remaining time of each Wave Bank is shown in seconds at a 30kHz sampling frequency. When sampling in 15kHz, multiply it by 2.**

***If there is not enough space, you should delete some unneedad data to increase the remaining time. You may either delete a Tone with [DELETE] in the EDIT mode, or cut off un−needed portions of a wave with [TRUNCATE] in the Utility mode.**

Step 1 **Insert a disk into the Disk Drive.**

Step 2 **Open the Command Window, than push the EXECUTE button or the left side button on the Mouse.**

When finished, **"Complete"** is shown on the message line.

DISK MODE

DIR Patch

You can see the list of the Patch names saved on a disk.

Step 1 Push the DISK button, or open the Mode Menu and select DISK, to call the Disk mode.

Step 2 Open the Menu Window end select [DIR Patch], and the Commend Window will open.

Step 3 Push the EXECUTE button or the left side button on the Mouse to dispely Patch List.

DISK MODE

DIR Tone

You can see the list of the Tone names saved on a disk.

Step 1 Push the DISK button, or open the Mode Menu and select DISK, to call the Disk mode.

Step 2 Dpen the Menu Window and select [DIR Tone], and the Command Window will open.

Step 3 Push the EXECUTE button or the left side button on the Mouse to displey the Tone List.

9 Saving

The data written in the internal memory of the S−550 can be saved onto a disk.

Lebel Sat (Satting the Disk Label) **(Page 132)**

Sava (Saving the entire data) **(Pege 133)**

Seve P. PRM (Seving e Patch) **(Pege 137)**

Format (Formetting e Disk) **(Pege 139)**

Beckup (Beckup) **(Page 140)**

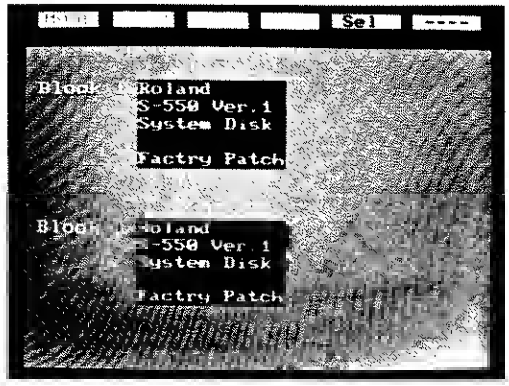
Sava SYS (Saving tha System only) **(Pege 142)**

The Protect Tab on a disk serves to protect the data from accidental erasure. To save data onto a disk, be sure to set the tab to the WRITE position first. Then insert it into the disk drive. When the Protect Tab is set to the PROTECT position, the data cannot be saved. After saving is completed, be sure to return the tab to the PROTECT position.

A brand new floppy disk, or a disk being used for any device other than the S−550, should be formatted (initialized) first, then save the data. Otherwise, the data cannot be saved.

Label Set

In this menu, you can set the Disk Label which can be saved together with Block data. Up to 60 letters can be used for a Disk Label.



Preparation 1 **Push the DISK button, or open the Mode Menu end select DISK to call the Disk mode.**

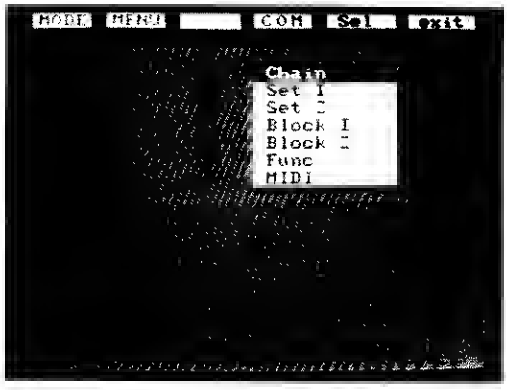
Preparation 2 **Dpen the Menu Window and select [Label Set].**

***To select a letter, you can also use the Ten Key Ped. Each time e number key is pushad, a different letter is selected as shown below.**

1	→A→B→C	7	S→T→U→
2	→D→E→F	8	→V→W→X
3	→G→H→I	9	→Y→Z→/
4	→J→K→L	0	→+→−→×
5	→M→N→D	ENT	Space
6	→P→Q→R		

Save

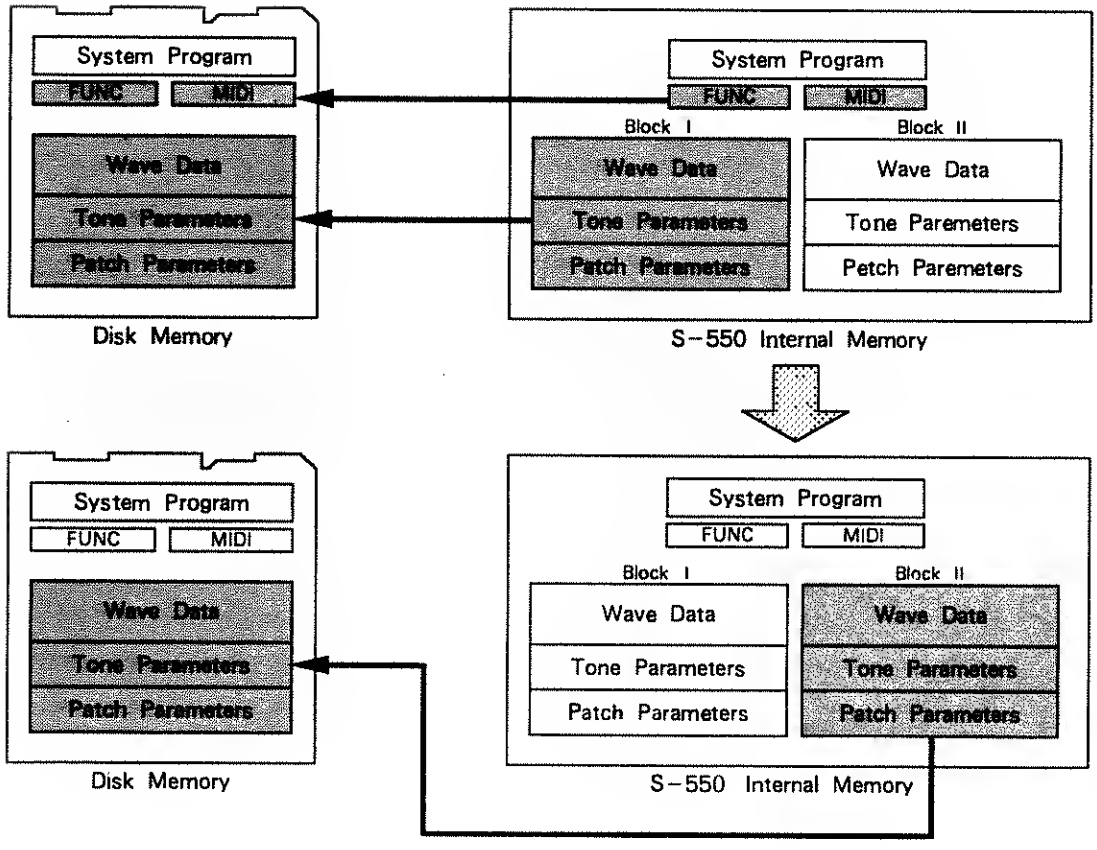
The entire sound data in the internal memory of the S−550 can be saved onto a disk.



Preparation 1 **Push the DISK button, or open the Mode Menu and select DISK, to call the Disk mode.**

Preparation 2 **Dpen the Menu Window and select [Save].**

Save Chain This can save two disks continuously from the S−550.



Executing the Chain Save

Step 1 **Set the Protect Tab of the disk for Block I data to the WRITE position, end insert the disk into the disk drive.**

Step 2 **Select [Chein Save], then push the EXECUTE button or the left side button on the Mouse.**

"Now Seving" is shown on the Message Line, and Disk Label of the Block currently being saved is shown in the middle of the Display.

Step 3 **When it counts down to "00", end "Change Next Disk" is shown on the Message Line, push the Eject Button end remove the disk.**

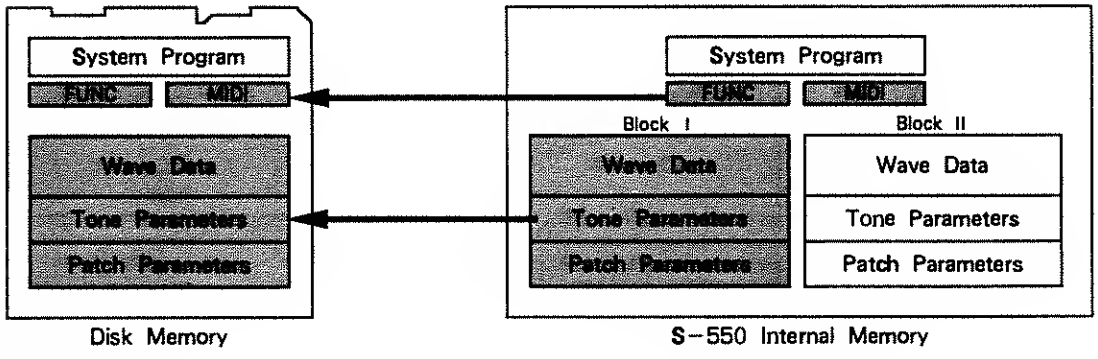
Step 4 **Set the Protect Tab on the disk for Block II data to the WRITE position, and insert the disk into the disk drive.**

***If you wish to stop saving here, push the COMMAND button on the S−550.**

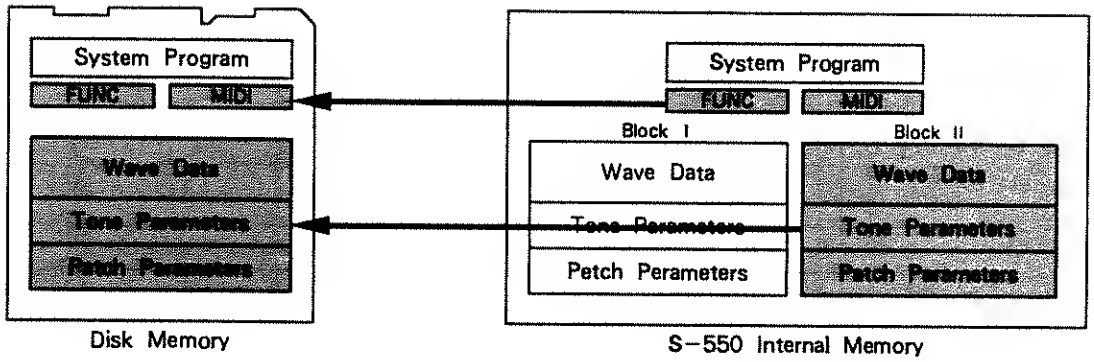
Step 5 **Inserting the disk will automatically start seving, end "Now Saving" is shown on the Message Line. The disk lebel of the disk which is currently being saved is shown in the middle of the Display.**

When the number counts down to 00, and **"Complete"** is shown on the Message Line, saving is completed.

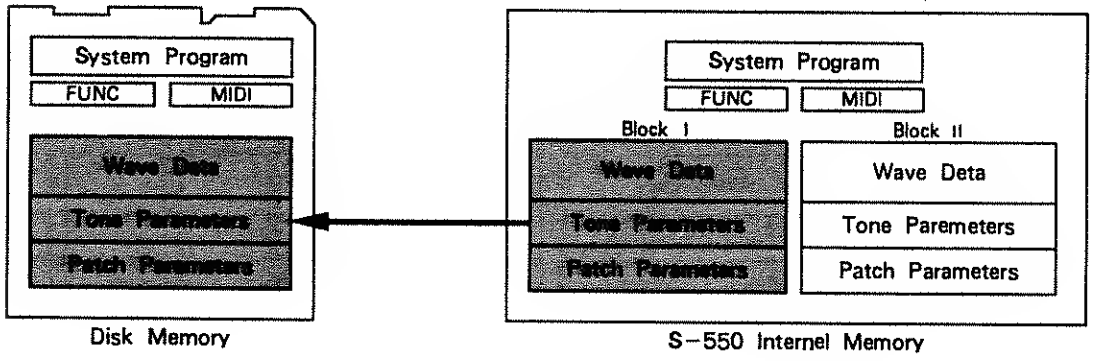
Seve Set I This saves Block I data, Function and MIDI data onto a disk.



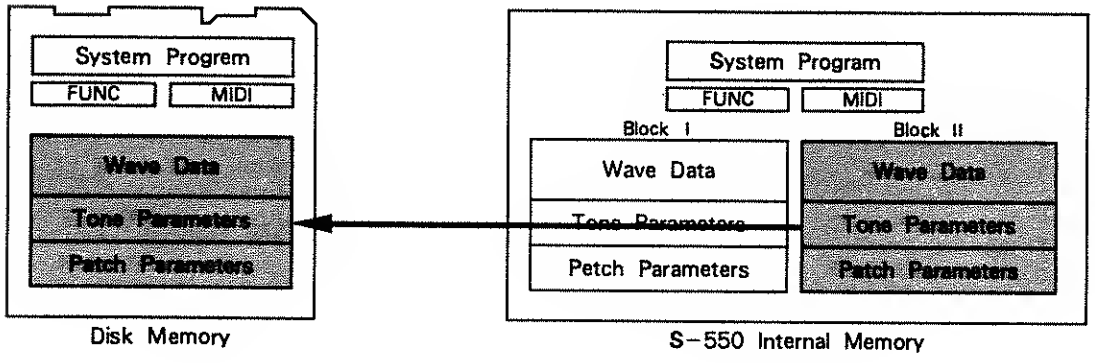
Save Set II This saves Block II data, Function and MIDI data onto a disk.



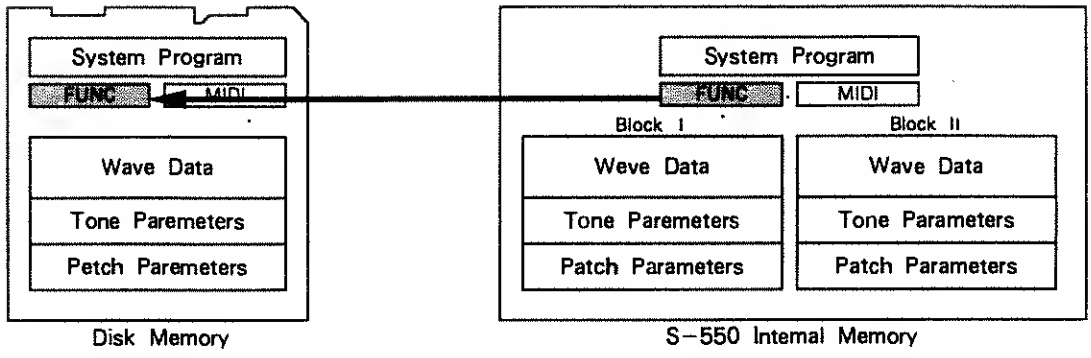
Seve BL I This saves Block I data onto a disk.
The Display shows Save BL I.



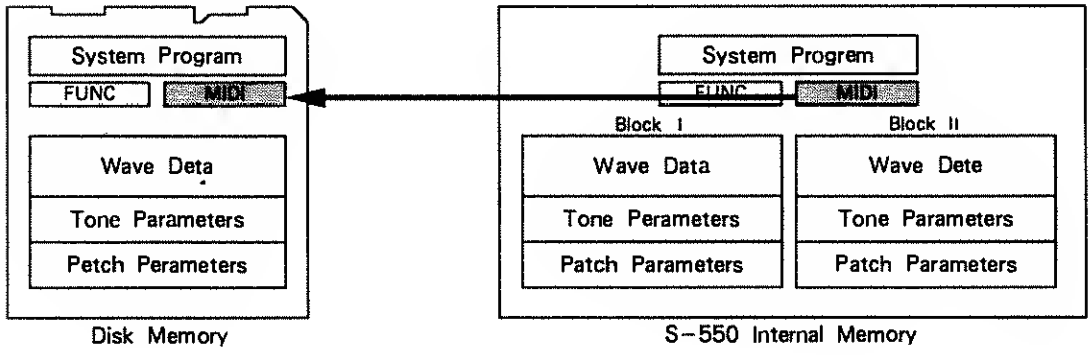
Seve BL II This saves Block II data onto a disk.
The Display shows Save BL II.



Save Func This saves only Function data (Parameters set in the Play and Func mode) onto a disk.



Seve MIDI This saves only MIDI data (Parameters set in the MIDI mode) onto a disk.



Executing Saving

Step 1 **Set the Protect Teb on e disk to the WRITE position, end insert the disk into the Disk Drive.**

Step 2 **Open the Commend Window end eelect the Commend you wish to execute, then push the EXECUTE button or the left eide button on the Mouse.**

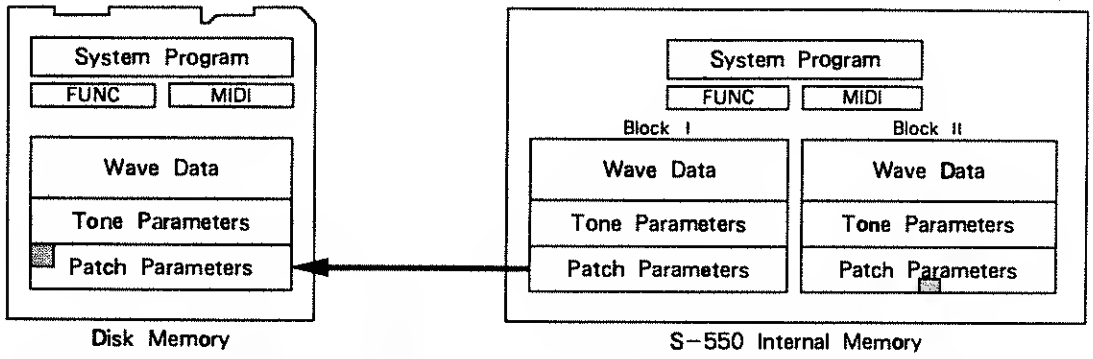
"Now Seving" is shown on the Message Line.

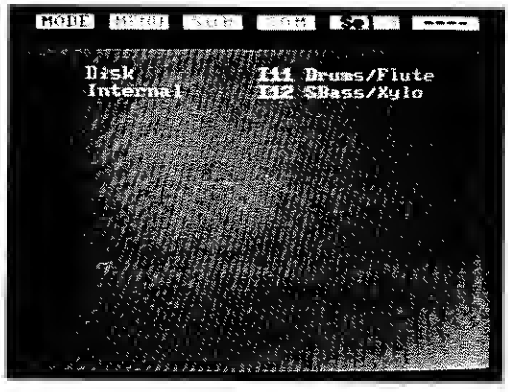
When Block data is being saved, the disk label of the disk which is currently being saved is shown in the middle of the Display.

When the number counts down to 00, and **"Complete"** is shown on the message line, saving is completed.

Save P. PRM

Any Patch (=only Patch Parameters) in the internal memory can be saved onto a disk.





Internal

Preperation 1 Push the DISK button, or open the Mode Menu end select DISK, to call the Disk mode.

Preperetion 2 Open the Menu Window end select [Seve P.PRM].

This parameter assigns the source Patch Number which is to be saved onto a disk.

***Opening the Sub Menu will show the Petch List of the internal memory which you cen watch for selecting e Patch number.**

Disk

Open the Sub Menu, select DISK, then assign the destination Parameter number on a disk where the Patch you select from the internal memory is to be saved.

***Always open the Sub Menu every time you change disks, otherwise, the Display may be showing the Patch names previously read.**

Step 1 **Set the Protect Tab on the disk to the WRITE position, then insert it in the Disk Drive.**

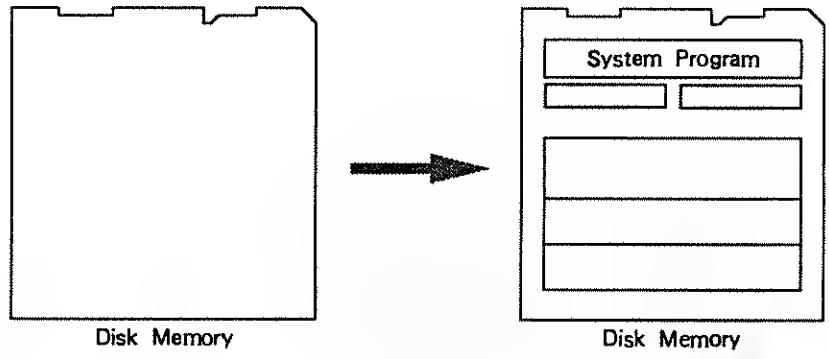
Step 2 **Open the Command Window, then push the EXECUTE button or the left side button the Mouse.**

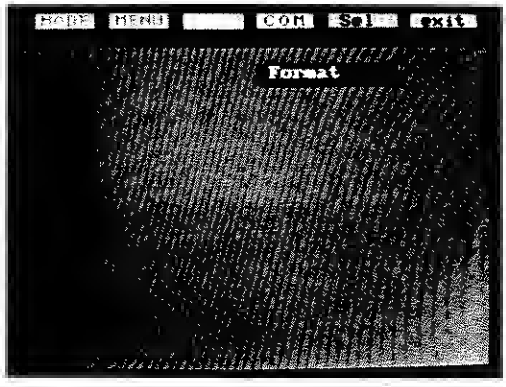
When finished, **"Complete"** is shown on the message line.

Format

This formats the disk for the S−550, and saves the system program loaded in the internal memory of the S−550.

The data in the S−550 cannot be saved onto a brand new disk, or a disk which has been used for a device other than the S−550, unless it is formatted.





Preparation 1 **Push the DISK button, or open the Mode Menu and select DISK, to cell the Disk mode.**

Preparetion 2 **Select [Format].**

Save EXT CTRL **[Off, Mouse, RC−100]**

A parameter for selecting a controller to be used. This is saved onto the disk with the system program.

Step 1 **Set the Protect Teb on the disk to the WRITE position, then insert it in the Disk Drive.**

Step 2 **Open the Commend Window, then push the EXECUTE button or the left side button on the Mouse.**

"**Formetting**" is shown on the message line.
When it counts down to 0, and "**Complete**" is shown, FORMAT is completed.

Backup

The entire data in the internal memory of the S−550 can be saved onto a disk.
BACKUP includes both the [**Format**] and [**Seve Set I**] or [**Save Set II**] functions.

***When you wish to make a copy of a disk, boot up the S−550 with the original disk and then using a disk for copying, execute Backup without editing the data.**

Preparation 1 Push the DISK button, or open the Mode Menu and select DISK, to call the Disk mode.

Preparation 2 Select [Backup].

Set 1 This saves FUNC data, MIDI data and Block I data onto a disk after formatting the disk.

Set 2 This saves FUNC data, MIDI data and Block II data onto a disk after formatting the disk.

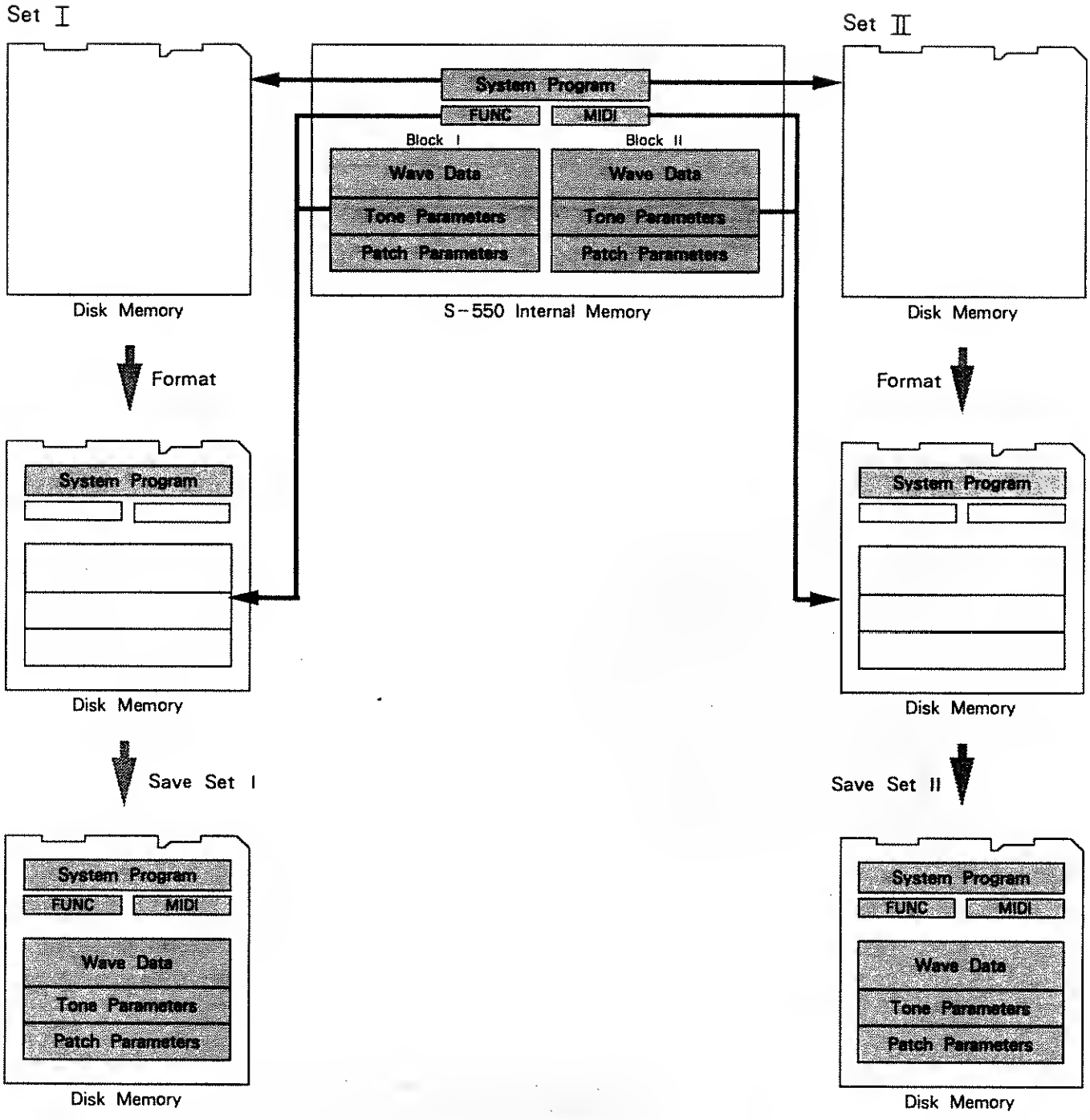
Seve EXT CTRL [**Off, Mouse, RC−100**]
A parameter for selecting a controller to be used. This is saved onto the disk with the system program.

Step 1 **Set the Protect Tab on the disk to be used for Backup to the WRITE position, and insert the disk to the Disk Drive.**

Step 2 **Open the Command Window and select a Command, then push the EXECUTE button or the left side button on the Mouse.**

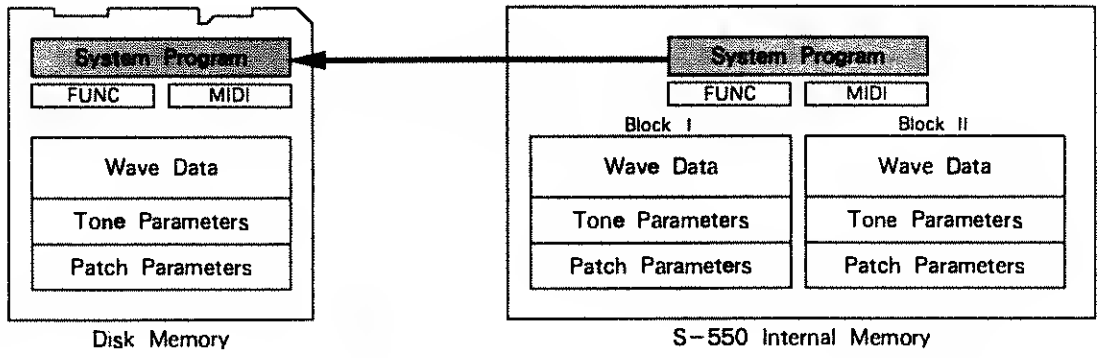
"**Formatting**" then "**Now Seving**" is shown on the Message Line.

When finished, "**Complete**" is shown on the Message Line.


Set I
Set II
System Program
FUNC
MIDI
Block I
Block II
Wave Data
Tone Parameters
Patch Parameters
Wave Data
Tone Parameters
Patch Parameters
Disk Memory
S-550 Internal Memory
Disk Memory
Format
Format
System Program
System Program
Disk Memory
Disk Memory
Save Set I
Save Set II
System Program
FUNC
MIDI
Wave Data
Tone Parameters
Patch Parameters
System Program
FUNC
MIDI
Wave Data
Tone Parameters
Patch Parameters
Disk Memory
Disk Memory

Save SYS

The system program loaded in the internal memory can be saved onto a disk.



Preparation 1 **Push the DISK button, or open the Mode Menu and select DISK, to cell the Disk mode.**

Preparation 2 **Select [Seve SYS].**

Seve EXT CTRL **[Off, Mouse, RC-100]**

A parameter for selecting a controller to be used. This is saved onto the disk with the system program.

Step 1 **Set the Protect Teb on the disk to be used for seving to the WRITE position, end insert the disk to the Disk Drive.**

Step 2 **Open the Commend Window, then push the EXECUTE button or the left side button on the Mouse.**

"**Saving System**" is shown on the Message Linc.

When finished, "**Complete**" is shown.

10 Other Useful Functions

Trig. Play (Audio Trigger Play) **(P.144)**

UTL. Backup (Backup of the Utility Disk) **(P.145)**

Convart (Convarting Data of the S−50 for the S−550) **(P.147)**

Change SYS (Change System) **(P.149)**

Trig. Play

The Trigger Play menu can play a Tone on the S−550 by an audio signal sent from an external device.

Step 1 Insert the Utility disk into the Disk Drive.

Step 2 Push the UTILITY button, or open the Mode Menu and select UTIL, to call the UTIL mode.

Step 3 Open the Menu Window and select [Trig.Play].

[How to make connections for Audio Trigger Play]

Audio signals should be input through the Input Jack. Connect the output jack on the audio equipment to the Input Jack.

To connect a microphone or guitar, push the LINE/MIC switch on the front panel (the indicator lights up), and for connecting audio equipment, push it again (the indicator goes out).

[Selecting the Sound to be played]

Feeding audio signal from the connected device will play the sound you select as follows.

Tone No. (Tone Number) **[I11 to II48]**

The Tone number to be played can be selected.

Key No.(Key Number) **[C0 to C9]**

The Key number to be played can be selected. A Key number can also be entered by assigning a Note number [12 to 120] with the Ten Key Pad.

***Any note higher than the Originel key by more than two octaves cannot be played.**

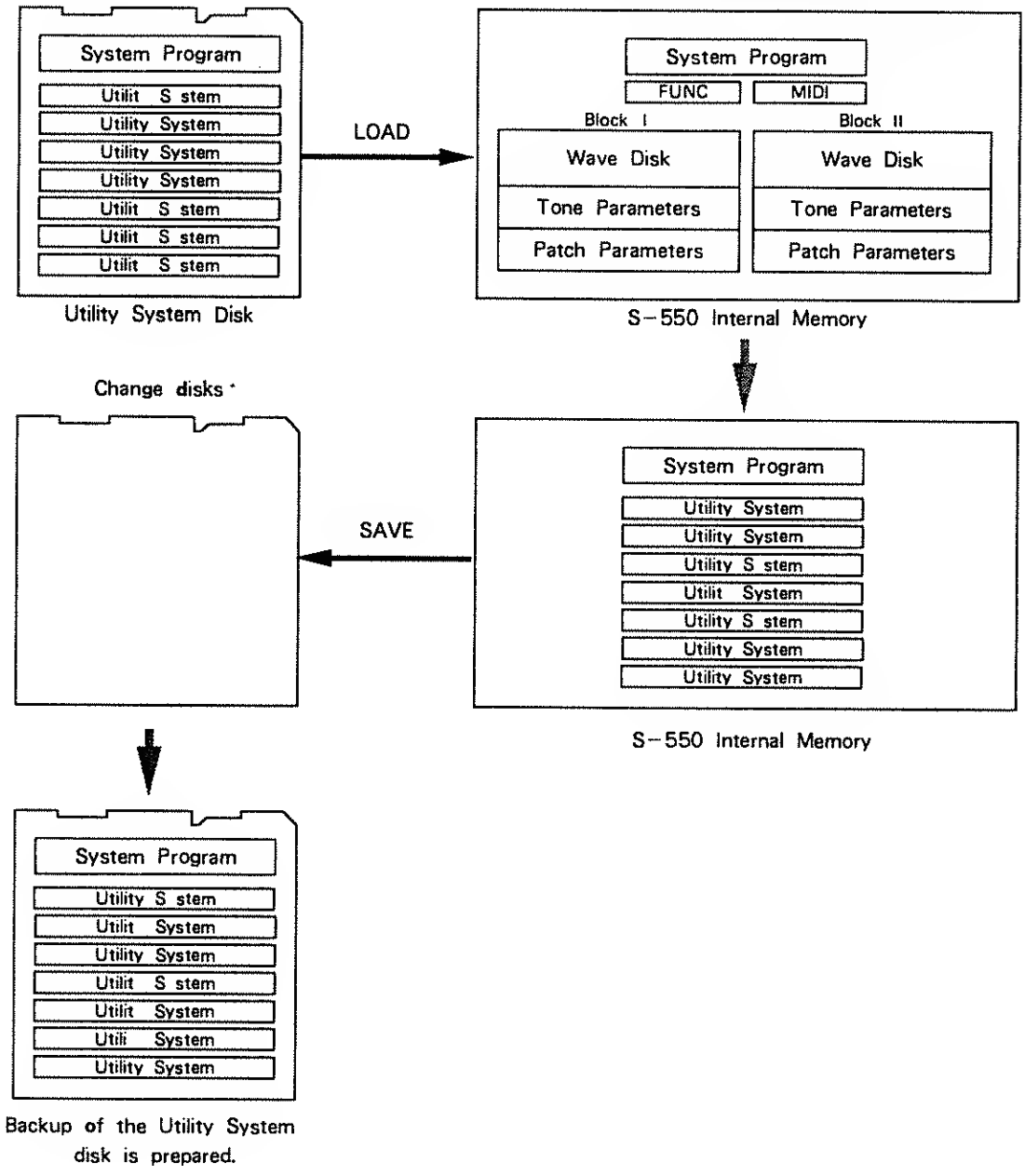
Velocity **[0 to 127]**

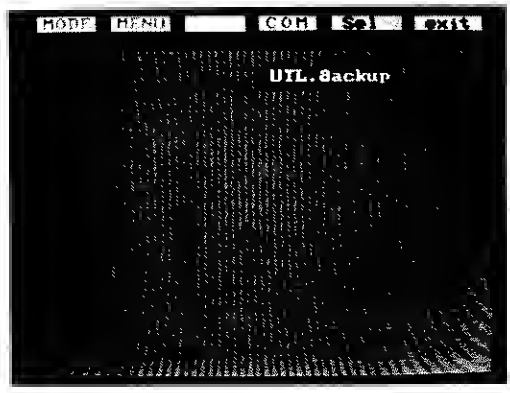
The velocity of sound can be set.

UTL. Backup

The entire data on the Utility disk can be copied to make a backup.

***The Utility Beckup will erese any data stored in the internal memory of the S−550. If you wish to retain the data, save it onto e disk before doing the Utility Backup.**





Preparetion 1 **Insert tha Utility disk into the Disk Drive.**

Praparation 2 **Push the UTILITY button, or open tha Moda Menu and select UTIL, to call the UTIL mode.**

Preparation 3 **Salact [UTL.Backup].**

Seva EXT CTRL **[Off, Mouse, RC−100]**

A parameter for selecting a controller to be used. This is saved onto the disk with the system program.

Step 1 **Opan the Command Window, then push tha EXECUTE Button or the left side button on the Mousa.**

"Now Loading" is shown in the Display, and the entire Utility system program is loaded into the internal memory.

Step 2 **When "Change disk" is shown in tha Display, insert a disk for backup into tha Disk Driva with tha Protect Tab on the disk sat to the Write position.**

"Formetting", then **"Now Saving"** is shown on the Message Line.

When finished, **"Complete"** is shown on the Message Line.

Convert

The Convert function can convert S−50 data into S−550 or the S−550 data into (Ver.2.0).

＊The S−50 and S−550 do not feature exactry the sama perameters, therefore, tha converted data may sound differant from eech other.

＊Dete on the S−330's disk cen be loaded into the S−550 without converting it.

Preperetion 1 **Insert the Utility disk into the Disk Drive.**

Preparation 2 **Push the UTILITY button, or open the Mode Menu and select UTIL, to cell the Utility mode.**

Preperation 3 **Opan the Menu Window, and salect [Convert] to open the Commend Widow.**

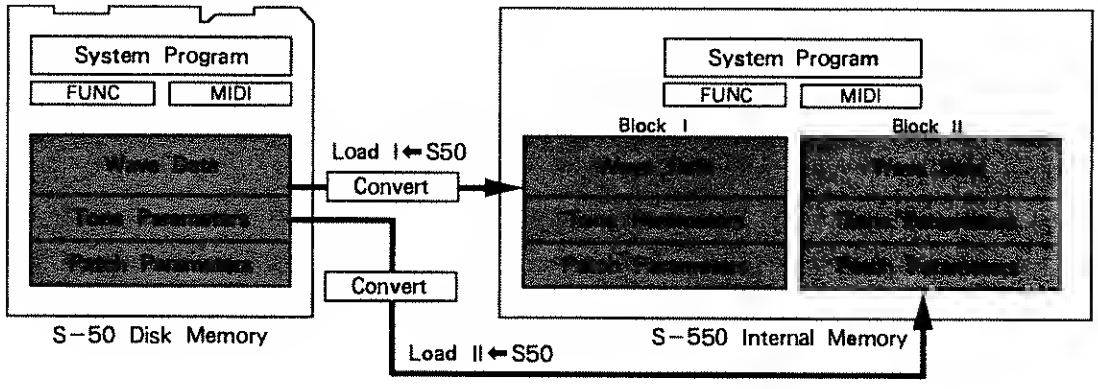
Convert Load

Loed I⬅S50

This loads the Block data on the S−50 (Ver.1.0, 2.0) disk into Block I in the S−550 memory.

Loed II⬅S50

This loads the Block data on the S−50 (Ver.1.0, 2.0) disk into Block II in the S−550 memory.



Step 1 **Insert the S−50 disk into the Disk Drive.**

Step 2 **Select the commend you wish to execute, end push the EXECUTE button or the left side button on the Mouse.**

"Now Loeding" is shown on the message line.

When finished, **"Complete"** is shown on the message line.

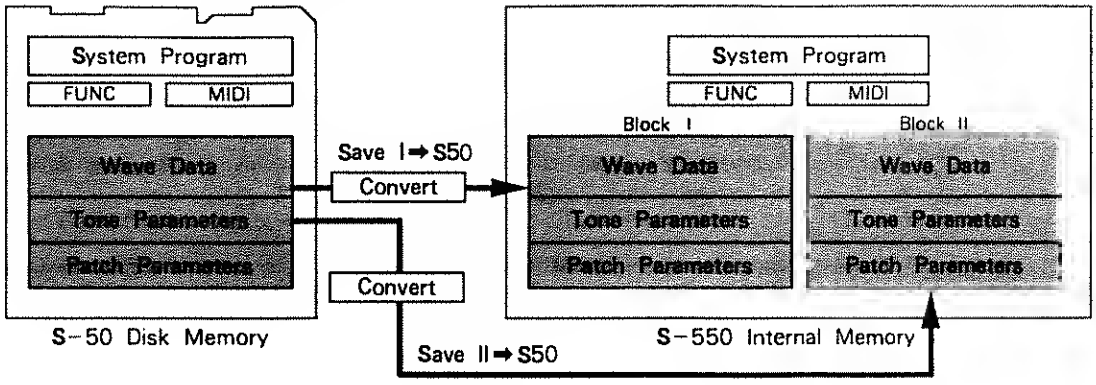
Convert Save

Seve I➡S50

This saves the Block I data on the S−550 memory into the S−50 (Ver. 2.0) disk.

Save II➡S50

This saves the Block II data on the S−550 memory into the S−50 (Ver.2.0) disk.



Step 1 **Prepere e disk formetted with the S−50 (Ver.2.0), and set the Protect Teb on the disk to the WRITE position. Then insert the disk into the Disk Drive.**

Step 2 **Select the commend you wish to execute, end push the EXECUTE button or the left side button on the Mouse.**

"Now Seving" is shown on the message linc.
When finished, **"Complate"** is shown on thc mcssagc linc.

Convert Disk

Conv➡S550

This updates a S−50 (Ver.1.0, 2.0) disk to thc S−550.

***This function dose not change the contents of Sound data on the S−550 memory.**

***The converted disk cen boot up the S−550.**

Step 1 **Prepere an S−50 disk to be converted into S−550, set the Protect Teb on the disk to the WRITE position, then insert it into the Disk Drive.**

Step 2 **Select the command "Conv➡S550", end push the EXECUTE button or the left side button on the Mouse.**

"Working" is shown on the Messagc Linc.
When finished, **"Complete"** is shown on thc Mcssagc Linc.

Conv ➡ S50

This function converts a S−550 disk into the S−50 (Ver.2.0).

***This function dose not chenge the contents of Sound dete on the S−550 memory.**

***The converted disk cen boot up the S−550.**

***This function converts only the Sound Oete. The system program remeins intact, therefore, it is not possible to boot up the S−50 with the converted disk. To do thet, first boot the S−50 with the Ver.2.0 system disk, then axecute SAVE SYS on this disk.**

***Patches on the S−550 ere numbered 11 through 18 and 21 through 28, while those on the S−50 (Ver.2.0) ere P1 to P8. Therefore, Petches 21 to 28 on the S−550 ere ignored in the Convert Disk.**

***When the Multi Patch setting on the S−550 dose not correspond to the S−50 (Ver.2.0), it will be modified autometically to metch the S−50's. So, check the setting and correct it, if necessary.**

Step 1 **Prepere en S−550 disk to be converted into S−50 (Ver.2.0), set the Protect Teb on the disk to the WRITE position, then insert it into the Disk Drive.**

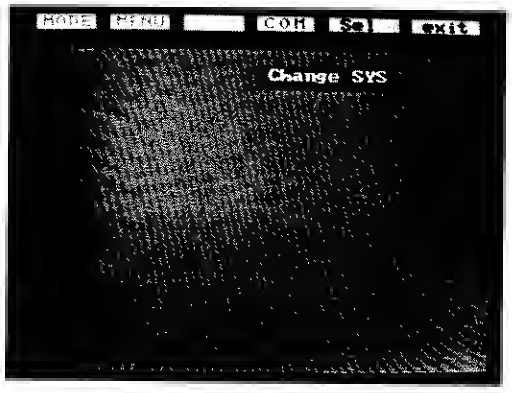
Step 2 **Select the commend "Conv ➡ S50", end push the EXECUTE button or the left side button on the Mouse.**

"Working" is shown on the Message Line.
When finished, **"Complete"** is shown on the Message Line.

DISK MODE

Change System

This replaces the system program loaded in the internal memory with different software, leaving the sound data intact.



Step 1 **Push the DISK button, open the Mode Menu end select DISK, to cell the DISK mode.**

Step 2 **Open the Menu Window, and select [Chenge SYS], to open the Commend Window.**

Step 3 **Push the EXECUTE button or the left side button on the Mouse.**

ERROR MESSAGES

Not Execute

This is shown when a command cannot be executed, such as there is no space left for writing wave data, or the same Tone number is assigned for the source and the destination Tones.

Level Over

This is shown to warn you that the level of the sound may exceed the capacity, causing distortion during digital filtering or mixing.

Insert Disk

A disk is not connected to the S−550.

Insert S−550 Disk

This is shown when the connected disk is not formatted for the S−550.

Insert Sound Disk

This is shown when the Utility disk is inserted. Sound data cannot be saved on the Utility disk. Insert an S−550 disk that contains sound data.

Insert Utility Disk

This is shown when a disk containing sound data is inserted. What you wish to do is load the Utility system, so replace it with the Utility disk.

Insert S−50 Disk

When using the Convert Load or Convert Disk function that works on the S−50 disk, a disk other than the S−50's is inserted in the Disk Drive. Insert an S−50 disk.

Disk Protected

The Protect Tab on the disk is set to the PROTECT position, therefore data cannot be saved.

Disk Error

There is something wrong with the disk, and data cannot be read properly. Replace it with a proper one.

Disk Load Error

There is something wrong with the System Program of the disk, therefore the S−550 cannot boot. Replace it with a proper one.

***If the number turns red during countdown, the System Program cannot be read properly.**

DIGITAL SAMPLER
MODEL S−550

MIDI Implementation Chart

Date : Sep. 9. 1987
Version : 1.00

Function...		Transmitted	Recognized	Remarks
Basic Channel	Default	×	1−16 *4	*2
	Changed	×	1−16 *4	
Mode	Default	×	3	
	Messages	×	×	
	Altered	*********	×	
Note Number		×	12−120	
	True Voice	*********	12−120	
Velocity	Note ON	×	*1	V=1−127
	Note OFF	×	×	
After Touch	Key's	×	×	
	Ch's	×	*1	
Pitch Bender		×	*1	
Control Change	1	×	*1	Modulation
	7	×	*1	Volume
	64	×	*1	Hold 1
	100, 101		*1	RPC LSB, MSB
	6, 38			DATA Entry LSB, MSB
				Number−0 Pitch Bend Sensitivity
Prog Change	True #	*********	*1 0−127 0−127	*3
System Exclusive		*1	*1	
System Common	Song Pos	×	×	
	Song sel	×	×	
	Tune	×	×	
System Real Time	Clock	×	×	
	Commands	×	×	
Aux Message	Local ON/OFF	×	×	
	All Notes OFF	×	○ (123−127)	
	Active Sense	×	×	
	Reset	×	×	
Notes		*1 Can be set to ○ or × manually, and memorized by disk. *2 Memorized by disk. *3 Patch numbers for each program change number can be set freely. *4 MIDI Channel of each voice group can be set in Multi Channel Mode.		

Roland Exclusive Messages

1. Deta Format for Exclusive Messeges

Roland's MIDI implementation uses the fulfowing data format for all exclusive messages (type IV):

Byte	Description
F0H	Exclusive status
41H	Manufactures ID (Roland)
DEV	Device ID
MDL	Modal ID
CMD	Command ID
[BDDY]	Maindata
F7H	End of exclusive

 # MIDI status : F0H, F7H

An exclusive message must be flanked by a pair of atatus codes, starting with a Manufectures-ID immediately after F0H (MIDf version1.0).

 # Manufactures-ID : 41H

The Manufactures-ID identifies the manufacturer of a MIDf instrument that triggerea an exclusive message. Value 41H represents Roland's Manufactures-ID.

 # Device-ID : DEV

The Device-fD contains a unique value that identifies the individual device in the multiple implementation of MIDI instruments. It is usually set to 00I1 - 0FH, a velue smaller by one than that of a hasic channel, but value 00H - fFH may be used for a device wlth multiple basic channels.

 # Model-ID : MDL

The Model-ID contains a value that uniquely identifies one model from enother. Different models, however, may share an identical Model-ID if they handle similar data.

The Model-ID format may contain 0III in one or more places lo provide an extended data field. The following are examples of valid Model-IDs, each representing a unique model:

01H
02H
03H
00H, 01H
00H, 02H
00H, 00I1, 01I1

 # Command-ID : CMD

The Command-ID iodicates the function of an exclusive message. The Command-ID format may contain 00H in one or more places to provide an extended data field. The following are examples of valid Command-IDs, each representing a unique function:

01H
02H
03H
00H, 01I1
00H, 02I1
00H, 00I1, 01H

 # Main date : BDDY

This fiefd contains a message to be exchanged across an interface. The exact data size and contents will vary with the Model-ID and Command-ID.

2. Address-mepped Deta Transfer

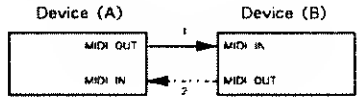
Address mapping is a technique for transferring messages conforming to the data format given in Section 1. It assigns a series of memory-resident records--waveform and tone data, switch status, and parameters, for example--to specific locations in a machine-dependent address space, thereby allowing access to data residing at the address a message specifies.

Address-mapped dete transfer is therefore independent of models and data categories. This technique allows use of two different transfer procedures : one-way transfer and handshake transfer.

 # Dne-way transfer procedure (See Section3 for details.)

This procedure is suited for the transfer of a small amount c data. It sends out an exclusive message completely iodepender of a receiving device status.

Connection Diagram

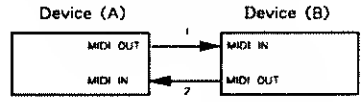


Connectlonat point2 is essential for "Request data" procedure (See Section3.)

 # Handshake-transfer procedure (See Section4 for deteils.)

This procedure initiates a predetermined transfer sequenc (handshaking) across the interface before data transfer take place. Handshaking ensures that reliability and transfer spee are high enough to handle a large amount nf data.

Connection Diagram



Connectionat points1 and 2 is essential.

Notes on the above two procedures

- *There are separate Command-IDs for different transfe procedures.
- *DevicesA and B cannot exchange data unless they use th same transfer procedure, share identical Device-ID and Mode ID, and are ready for communication.

3. Dne-way Transfer Procedure

This procedure sends out deta all the way until it stops whe the messages are so short that answerbacks need not b checked.
For long messages, however, the receiving device must ecquir each message in time with the transfer sequence, which insert intervals of at least 20milliseconds in between.

Types of Messages

Message	Command ID
Request date 1	RD1 (11H)
Date set 1	DT1 (12H)

 # Request data # 1 : RD1 (11H)

This message is sent out when there is a need to acquire dat from a device at the other end of the interface. It contains dat for the address and size that specify designation and lengtl respectively, of data required.
On receiving en RQ1 message, the remote device checks it memory for the data address and size that satisfy the reques

ff it fiods them and is ready for communication, the device wi transmit a "Data set 1 (DT1)" message, which containa th requested data. Otherwise, the device will send out nothing.

Byte	Description
F0H	Excluaive stetus
41H	Manufactures ID (Roland)
DEV	Device ID
MDL	Model ID
11H	Command ID
aaH	Address MSB
⋮	⋮
	LSB
ssH	Size MSB
⋮	⋮
	LSB
sum	Chack sum
F7H	End of exclusive

*The size of the requested data does not indicate the number of bytes that will make up a DT1 message, but represents the address fields where the requested data resides.
*Some models are subject to limitations in data format used for a single transaction. Requested data, for example, may have a limit in length or must be divided into predetermined address fields before it is exchanged across the interface.
*The same number of bytes comprises address and size data, which, however, vary with the Model-ID.
*The error checking process uses a checksum that provides a bit pattern where tha least significant 7 bits are zero when values for an address, size, and that checksum are summed.

Data set 1 : DT1 (12H)

This message corresponds to the actual data transfer process. Because every byte in the data is assigned a unique address, a DT1 message can convey the starting address of one or more data as well as a series of data formatted in an address - dependent order.

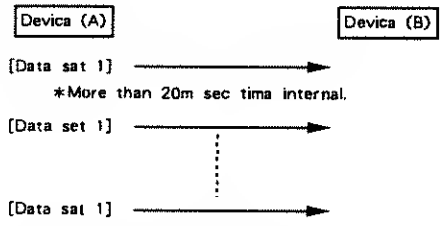
The MIDI standards inhibit non-real time messages from interrupting an exclusive one. This fact is inconvenient for the devices that support a "soft-through" mechanism. To maintain compatibility with such devices, Roland has limited the DT1 to 256 bytes so that an excessively long message is sent out in separate segments.

Byta	Description
F0H	Exclusive
41H	Manufactures ID (Roland)
DEV	Device ID
MDL	Model ID
12H	Command ID
aaH	Address MSB
⋮	⋮
	LSB
ddH	Data
⋮	⋮
sum	Chack sum
F7H	End of exclusive

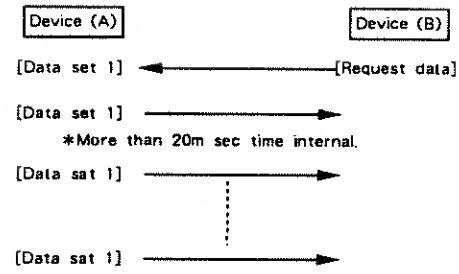
*A DT1 message is capable of providing only the valid data among those specified by an RQ1 message.
*Some mndels are subject to limitations in data format used for a single transaction. Requested data, for example, may have a limit in length or must be divided into predetermined address fields before it is exchanged across the interface.
*The number of bytes comprising address data varies from one Mndel-ID to another.
*The error checking process uses a checksum that provides a bit pattern where the least significant 7 bits are zero when values for an address, slze, and that checksum are summed.

Example of Message Transactions

● Device A sending data to Device B
Transfer of a DT1 message is all that takes place.



● Device B requesting data from Device A
Device D sends an RQ1 message to Device A. Checking the message, Device A sends a DT1 message back to Device B.



4. Handshake- Transfar Procadure

Handshaking is an interactlve process where two devices exchange error checking signals before a message transaction takes place, thereby increasing data reliability. Unlike one-way transfer that inserts a pause between massage transactions, handshake transfer allows much speedier transactions because data transfer starts once tbe receiving device returns a ready signal.

When it comes to handling large amounts of data--sampler waveforms and synthesizer tones over the entire range, for example--across a MIDI interface, handshaking transfer is more efficient than one-way transfer.

Types of Messages

Message	Command ID
Want to send data	WSD (40H)
Request data	RDD (41H)
Data set	DAT (42H)
Acknowledga	ACK (43H)
End of data	EOD (45H)
Communication error	ERR (4EH)
Rejection	RJC (4FH)

Want to sand data : WSD (40H)

This message is sent out when data must be sent to a device at the other end of the Interface. It contains data for the address and size that specify designation and length, respectively, of the data to be sent.

Dn receiving a WSD message, the remote device checks its memory for the specified data address and size which will satisfy the request. If it finds them and is ready for communication, the device will return an "Acknowledge (ACK)" message.
Otherwise, it will return a "Rejection (RJC)" message.

Byte	Description
F0H	Exclusive status
41H	Manufactures ID (Roland)
DEV	Devica ID
MDL	Model ID
40H	Command ID
aaH	Address MSB
⋮	⋮
	LSB
ssH	Siza MSB
⋮	⋮
	LSB
sum	Check sum
F7H	End of exclusive

*The size of the data to be sent does not indicate the number of bytes that make up a "Data set (DAT)" message, but represents the address fields where the data should reside.
*Some models are subject to limitations in data format used for a single transaction. Requested data, for example, may have a limit in length or must be divided into predetermined address fields before it is exchanged across the interface.
*The same number of bytes comprises address and size data, which, however, vary with the Mndel-ID.
*The error checking process uses a checksum that provides a bit pattern where the least significant 7 bits are zero when values for an address, size, and that checksum are summed.

Request data : RDD (41H)

This message is sent out when there is a need to acquire data from a device at the other end of the interfece. It contains data for the address and size that specify designation and length, respectively, of data required.

On receiving an RQD message, the remote device checks its memory for the data address and size which satisfy the request. If it finds them and is ready for communication, the device will transmit a "Data set (DAT)" message, which contains the requested data. Otherwise, it will return a "Rejection (RJC)" message.

Byte	Description
F0H	Exclusive stetus
41H	Manufectures ID (Roland)
DEV	Device ID
MDL	Model ID
41H	Command ID
aaH	Address MSB
	LSB
ssH	Size MSB
	LSB
sum	Check sum
F7H	End of exclusive

*The size of the requested deta does not indicate the number of bytes that make up e "Data set (DAT)" message, but represents the address fields where the requested data resides.
*Some models are subject to limitations in data format used for a single transaction. Requested data, for exemple, may have a limit in length or must be divided into predetermined address fields before it is exchanged ecross the interface.
*The same number of bytes comprises eddress and size data, which, however, vary with the Mndel-ID.
*The error checking process uses a checksum that provides a bit pattern where the least signilicant 7 bits are zero when velues for en address, size, end that checksum are summed.

Data set : DAT (42H)

This message corresponds to the actual data transfer process. Because every byte in the data is essigned a unique address, the message can convey the starting address of one or more data as well as a series of data formatted in en address-dependent order.

Although the MIDI standards inhibit non-real time messages from interrupting an exclusive one, some devices support a " soft- through " mechanism for such interrupts. To maintaincompatibility with such devices, Roland has limited the DAT to 256bytes so that en excessively long message is sent out in separate segments.

Byta	Description
F0H	Exclusiva status
41H	Manufectures ID (Roland)
DEV	Device ID
MDL	Model ID
42H	Command ID
aaH	Address MSB
	LSB
ddH	Data
sum	Check sum
F7H	End of exclusive

*A DAT message is capable of providing only the valid da among those specified by an RQD or WSD message.
*Some models are subject to limitations in data format use for a singla transaction. Requested data, for example, ma have a limit in length or must be divided into predetermine address fields before it is exchanged across the interface.
*The number of bytes comprising address data varies fro one model ID to another.
*The error checking process uses a checksum that provid a bil pattern where the least significant 7 bits are zero whe values for an address, size, and that checksum are summe

Acknowladge : ACK (43H)

This message is sent out when no error was detected c reception of a WSD, DAT, "End of data (EOD)", or some oth message end e requested setup or ection is complete. Unle it receives an ACK message, the device at the other end w not proceed to the next operation.

Byte	Description
F0H	Exclusiva stetus
41H	Menufectures ID (Roland)
DEV	Device ID
MDL	Model ID
43H	Command ID
F7H	End of axclusive

End of data : EDD (45H)

This message is sent out to inform a remote device of the er of a message. Communication, however, will not come to a end unless the remote device returns an ACK message eve though an EOD message was transmitted.

Byte	Description
F0H	Exclusiva status
41H	Manufectures ID (Roland)
DEV	Device ID
MDL	Model ID
45H	Command ID
F7H	End of exclusive

Communications arror : ERR (4EH)

This message werns the remote device of a communicatio fault encountered during message transmission due, f example, to a checksum error. An ERR message may replaced with a "Rejection (RJC)" one, which terminates t current message transaction in midstream.

When it receives an ERR message, the sending device m either attempt to send out the last message a second time terminate communication by sending out en RJC message.

Byte	Description
F0H	Exclusive status
41H	Manufectures ID (Roland)
DEV	Device ID
MDL	Modal ID
4EH	Command ID
F7H	End of axclusive

Rejection : RJC (4FH)

This message is sent out when there is a need to terminate communication by overriding the current message. An RJC message will be triggered when :

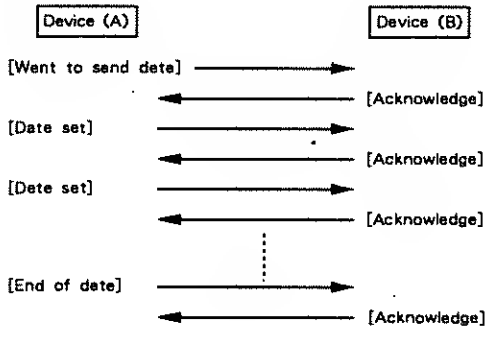
- a WSD or RQD message has specified an illegel data address or size,
- the device is not ready for communication,
- en illegal number of addresses or data has been detected,
- data transfer has been terminated by an operator,
- a communications error has occurred.

An ERR message may be sent out by a device on either side of the interface. Communication must be terminated immediately when either side triggers an ERR message.

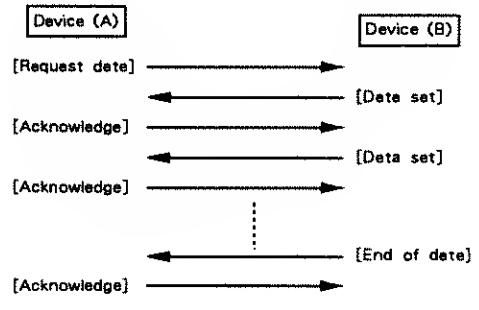
Byte	Description
F0H	Exclusive stetus
41H	Menufactures ID (Rolend)
DEV	Device ID
MDL	Model ID
4FH	Commend ID
F7H	End of exclusive

Example of Message Transections

● Dete transfer from device (A) to device (B).

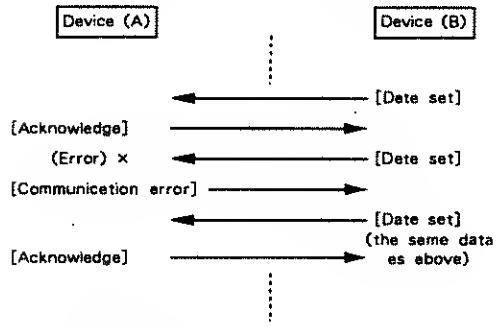


● Device (A) requests end receives dete from device (B).

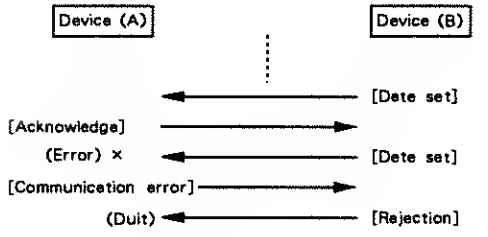


● Error occurs while device (A) is receiving dete from device (B).

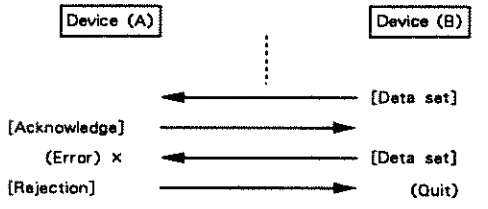
1) Dete transfer from device (A) to device (B).



2) Device (B) rejects the dete re-transmitied, end quits date transfer.



3) Device (A) immediately quits dete transfer.



DIGITAL SAMPLER
MODEL S−550

MIDI Implementation

Date : Sep. 1. 1987
Version : 1.00

1. TRANSMITTED DATA

■ System exclusive

Status
F0H : System exclusive
F7H : EOX (End Of Exclusive)

Transmitted if the System exclusive switch is ON.

2. RECOGNIZED RECEIVE DATA

Up to eight different channels can be set on the S−550.

■ Note event

Note off

Status	Second	Third
8nH	kkH	vvH
9nH	kkH	00H

kk=Note number 0CH−78H (12−120)
vv=Velocity igored
n=MIDI channel number 0H−FH (1−16)

Note on

Status	Second	Third
9nH	kkH	vvH

kk=Note number 0CH−78H (12−120)
vv=Velocity 01H−7FH (1−127)
n=MIDI channel number 0H−FH (1−16)

■ Control change

Modulation

Status	Second	Third
BnH	01H	vvH

vv=00H−7FH (0−127)

Recognized if the Modelation recognition switch is ON.

Volume

Status	Second	Third
BnH	07H	vvH

vv=00H−7FH (0−127)

Recognized if the Volume recognition switch is ON.

Hold 1

Status	Second	Third
BnH	40H	vvH

vv=00H−3FH (0−63) : OFF
vv=40H−7FH (64−127) : ON

Recognized if the Hold recognition switch is ON.

Registard parameter control

Status	Second	Third
BnH	64H	ppH
BnH	65H	qqH
BnH	06H	mmH
BnH	26H	llH

Bend renge

	pp=RPC LSB	00H
	qq=RPC MSB	00H
	mm=Data entry MSB	00H−0CH
	ll=Data entry LSB	ignored

Recognized if the Bend range recognition switch is ON.

■ Program change

Status	Second
CnH	ppH

pp=Program change 00H−7FH (0−127)

Recognized if the Program change recognition switch is ON. How to assign a Program change number to a patch can be freely selected.

■ Channel aftertouch

Status	Second
DnH	vvH

vv=00H−7FH (0−127)

Recognized if the Aftertouch recognition switch is ON.

■ Pitch bender

Status	Second	Third
EnH	llH	mmH

ll=LSB 00H−7FH (0−127)
mm=MSB 00H−7FH (0−127)

Recognized if the Pitch bender recognition switch is ON.

■ Channel mode message

All notes off

Status	Second	Third
BnH	7BH	00H

Recognized as only All notes off. S−650 doees not change mode, but remains in mod
3 (Omni off, Poly). When the All notes off is recognized, all the notes whitch hav
been turned ON only by MIDI IN note ON messages are turned OFF. However, i
the damper ON message has been recognized, thees ON notes will be not turned OF
Damper OFF message is received.

OMNI OFF

Status	Second	Third
BnH	7CH	00H

OMNI ON

Status	Second	Third
BnH	7DH	00H

MONO

Status	Second	Third
BnH	7EH	0mH

POLY

Status	Second	Third
BnH	7FH	00H

Recognized if the System exclusive switch is ON.

■ System Exclusive

Status
F0H : System exclusive
F7H : EOX (End Of Exclusive)

Recognized if the System exclusive switch is ON.

3. EXCLUSIVE COMMUNICATIONS

The Exclusive Messages can be transmitted or recognized only when the Exclusive switch on the S-550 is ON. Ignored when OFF.

The Mndel-ID number of the S-550 is [1EH].

Device-ID can be changed from the panel in MIDI Mode.
The numbers 1-16 on the display correspond to Device-ID codes 0-15, respectively.

Each Address and Size should be 4 bytes of data, respectively.

3.1 One way communication

3.1.1 Request RQ1 11H

Only when the recognized address and size in RQ1 match those on the S-550, it transmits the corresponding data.
It ignores Requests having illegal address or size. *3-1

The S-550 won't tranmit RQ1.

Byte	Description	
F0H	Exclusive status	
41H	Roland-ID	
DEV	Device-ID	
1EH	Model-ID (S-550)	
11H	Command-ID (RQ1)	
aaH	Address MSB	*3-1
aaH	Address	
aaH	Address	
aaH	Address LSB	
ssH	Size MSB	*3-1
ssH	Size	
ssH	Size	
ssH	Size LSB	
sum	Checksum	
F7H	EOX (End of Exclusive)	

3.1.2 Data set DT1 12H

When the recognized Dataset message contains an appropriate address and size data, the S-550 stores the associated data that address.
It ignores any Data set having illegal address.

The S-550 transmits a Data set message when a Tone Parameter is edited on the pannel or when the S-550 recognizes RQ1.

Byte	Description	
F0H	Exclusive status	
41H	Roland-ID	
DEV	Device-ID	
1EH	Model-ID (S-550)	
12H	Command-ID (DT1)	
aaH	Address MSB	*3-1
aaH	Aodress	
aaH	Address	
aaH	Address LSB	
ddH	Data	*3-2
:		
sum	Checksum	
F7H	EOX (End of Exclusive)	

3.2 Handshaking communication

3.2.1 Went to send date WSD 40H

When recognized WSD message has an appropriate address and size data, the S-550 transmits ACK and waits the associated data.
If not appropriate, it will transmit RJC. *3-1

The S-SS0 won't transmit WSD.

Byte	Description	
F0H	Exclusive status	
41H	Roland-ID	
DEV	Device-ID	
1EH	Model-ID (S-550)	
40H	Command-ID (WSD)	
aaH	Address MSB	*3-1
aaH	Aodress	
aaH	Address	
aaH	Address LSB	
ssH	Size MSB	*3-1
ssH	Size	
ssH	Size	
ssH	Size LSB	
sum	Checksum	
F7H	EOX (End of Exclusive)	

3.2.2 Request dete RDD 41H

When recognized RQD message has an appropriate aodress aod size data, the S-550 transmits the corresponding data.
If not appropriate, it will trasnmit RJC. *3-1

The S-550 won't transmit RQD.

Byte	Description	
F0H	Exctusive status	
41H	Roland-ID	
DEV	Device-ID	
1EH	Model-ID (S-550)	
41H	Commnand-ID (RQD)	
aaH	Address MSB	*3-1
aaH	Address	
aaH	Aodress	
aaH	Address LSB	
ssH	Size MSB	*3-1
ssH	Size	
ssH	Size	
ssH	Size LSB	
sum	Checksum	
F7H	EDX (End of Exclusive)	

3.2.3 Data set DAT 42H

Byte	Description	
F0H	Exclusive status	
41H	Roland-ID	
DEV	Device-ID	
1EH	Model-ID (S-650)	
42H	Command-ID (DAT)	
aaH	Address MSB	*3-1
aaH	Address	
aaH	Address	
aaH	Address LSB	
ddH	Data	*3-2
:		
sum	Checksum	
F7H	EDX (End of Exclusive)	

3.2.4 Acknowledge ACK 43H

Byte	Description
F0H	Exclusive status
41H	Roland-ID
DEV	Device-ID
1EH	Model-ID (S-550)
43H	Command-ID (ACK)
F7H	EOX (End of Exclusive)

3.2.5 End of date EDD 45H

Byte	Description
F0H	Exclusive status
41H	Roland-ID
DEV	Device-ID
1EH	Model-ID (S-550)
45H	Command-ID (EOD)
F7H	EOX (End of Exclusive)

3.2.6 Communication error ERR 4EH

The S-550 transmits ERR if a checksum error occurs.

When ERR message is recognized, the S-550 transmits RJD and ceases the current communication.

Byte	Description
F0H	Exclusive status
41H	Roland-ID
DEV	Device-ID
1EH	Model-ID (S-650)
4EH	Command-ID (ERR)
F7H	EOX (Eod of Exclusive)

3.2.7 Rejection RJC 4FH

The S-650 transmits RJC and ceases communication if It detects one of the following:
a) ERR is recognized,
b) address in the recognized Dat set is not continuous one and
c) ENTER is activated on the panel during communication.

Byte	Description
F0H	Exclusive status
41H	Roland-ID
DEV	Device-ID
1EH	Model-ID (S-550)
4FH	Command-ID (RJC)
F7H	EOX (End of Exclusive)

Notes:

*3-1 Address and size should specify a memory space in which data exist. The lowest bit of LSB byte in address and size should be 0.

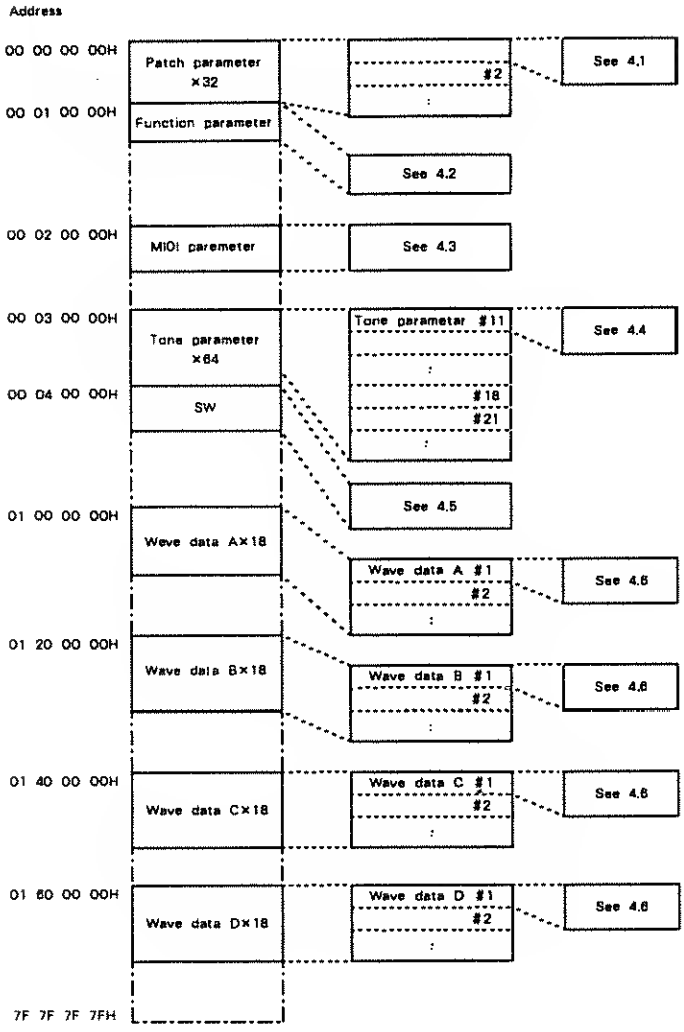
*3-2 The number of data bytes should be even number.

4. Address mapping of paramaters

Address is represented from 00 to 7F by hexdecimal.

Address	MSB			LSB
binary	0aaa aaaa	0bbb bbbb	0ccc cccc	0ddd dddd
7 bit Hex	AA	BB	CC	DD

An offset address added to an address of each block makes a real address.



4.1 Petch peremeter

Offset address	Description		
00 00H	0000 aaaa	PATCH NAME 1	
00 01H	0000 bbbb	aaaa bbbb	32−127 (ASCII)
:			
00 16H	0000 aaaa	PATCH NAME 12	
00 17H	0000 bbbb	aaaa bbbb	32−127 (ASCII)
00 18H	0000 aaaa	BEND RANGE	
00 19H	0000 bbbb	aaaa bbbb	0−12
00 1AH	0xxx xxxx	dummy	
00 1BH	0xxx xxxx		
00 1CH	0000 aaaa	AFTER TOUCH SENSE	
00 1DH	0000 bbbb	aaaa bbbb	0−127
00 1EH	0000 aaaa	KEY MODE	
00 1FH	0000 bbbb	aaaa bbbb	0 : Normal 1 : V−Sw 2 : X−Fade 3 : V−Mix 4 : Unison
00 20H	0000 aaaa	VELOCITY SW THRESHOLD	
00 21H	0000 bbbb	aaaa bbbb	0−127
00 22H	0000 aaaa	TONE TO KEY #1−1	
00 23H	0000 bbbb	aaaa bbbb	0 : OFF 1 : ON
01 7AH	0000 aaaa	TONE TO KEY #1−109	
01 7BH	0000 bbbb	aaaa bbbb	0 31
01 7CH	0000 aaaa	TONE TO KEY #2−1	
01 7DH	0000 bbbb	aaaa bbbb	0 31
:			
03 54H	0000 aaaa	TONE TO KEY #2−109	
03 55H	0000 bbbb	aaaa bbbb	0−31
03 56H	0000 aaaa	COPY SOURCE	
03 57H	0000 bbbb	aaaa bbbb	0−7
03 58H	0000 aaaa	OCTAVE SHIFT	
03 59H	0000 bbbb	aaaa bbbb	−2−+2
03 5AH	0000 aaaa	OUTPUT LEVEL	
03 5BH	0000 bbbb	aaaa bbbb	0−127
03 5CH	0000 aaaa	0xxx xxxx dummy	
03 5DH	0000 bbbb	0xxx xxxx	
03 5EH	0000 aaaa	DETUNE	
03 5FH	0000 bbbb	aaaa bbbb	−64−+63
03 60H	0000 aaaa	VELOCITY MIX RATIO	
03 61H	0000 bbbb	aaaa bbbb	0− 127
03 62H	0000 aaaa	AFTER TOUCH ASSIGN	
03 63H	0000 bbbb	aaaa bbbb	0 : Modulation 1 : Volume 2 : Bend + 3 : Bend − 4 : Filter
03 64H	0000 aaaa	KEY ASSIGN	
03 65H	0000 bbbb	aaaa bbbb	0 : Rotary 1 : Fix
03 66H	0000 aaaa	OUPUT ASSIGN	
03 57H	0000 bbbb	aaaa bbbb	0 : OUTPUT 1 1 : OUTPUT 2 2 : OUTPUT 3 3 : OUTPUT 4 4 : OUTPUT 5 5 : OUTPUT 6 6 : OUTPUT 7 7 : OUTPUT 8 8 : TONE
03 68H	0xxx xxxx dummy		
:			
03 7FH	0xxx xxxx		
Total size	00 00 04 00H		

4.2 Function peramеter

Offset address	Description		
00 00H	0000 aaaa	MASTER TUNE	
00 01H	0000 bbbb	aaaa bbbb	−64−+63
00 02H	0xxx xxxx	dummy	
:			
00 1BH	0xxx xxxx		
00 1CH	0xxx xxxx	dummy	
00 1DH	0xxx xxxx		
00 1EH	0xxx xxxx	dummy	
00 1FH	0xxx xxxx		
00 20H	0000 aaaa	VOICE MODE	
00 21H	0000 bbbb	aaaa bbbb	0−23 0 : AUTO MODE LAST NOTE PRIORITY 1 : AUTO MODE FIRST NOTE PRIORITY 2−23 : FIX MODE 1−22
00 22H	0000 aaaa	MULTI MIDI RX−CH 1	
00 23H	0000 bbbb	aaaa bbbb	0−15
:			
00 30H	0000 aaaa	MULTI MIDI RX−CH 8	
00 31H	0000 bbbb	aaaa bbbb	0−15
00 32H	0000 aaaa	MULTI PATCH NUMBER 1	
00 33H	0000 bbbb	aaaa bbbb	0−31
:			
00 40H	0000 aaaa	MULTI PATCH NUMBER 8	
00 41H	0000 bbbb	aaaa bbbb	0 - 31
00 42H	0xxx xxxx	dummy	
:			
00 53H	0xxx xxxx		
00 54H	0000 aaaa	KEYBOARD DSPLAY	

			1 : D 2 : C 3 : D 4 : E 5 : F 6 : G 7 : H 8 : ALL
00 56H	0000 aaaa	MULTI LEVEL 1	
00 57H	0000 bbbb	aaaa bbbb	0−127
:			
00 64H	0000 aaaa	MULTI LEVEL 8	
00 65H	0000 bbbb	aaaa bbbb	0−127
00 66H	0000 aaaa	BLOCK 1 DISK LABEL 1	
00 67H	0000 bbbb	aaaa bbbb	32−127 (ASCII)
:			
01 5CH	0000 aaaa	BLOCK 1 DISK LABEL 60	
01 5DH	0000 bbbb	aaaa bbbb	32−127 (ASCII)
01 5EH	0xxx xxxx	dummy	
:			
01 65H	0xxx xxxx		
01 66H	0000 aaaa	EXTERNAL CONTROLER	
01 67H	0000 bbbb	aaaa bbbb	0 : OFF 1 : MOUSE 2 : RC−100
01 68H	0xxx xxxx	dummy	
:			
04 65H	0xxx xxxx		
04 66H	0000 aaaa	BLOCK 2 DISK LABEL 1	
04 67H	0000 bbbb	aaaa bbbb	32−127 (ASCII)
:			
05 5CH	0000 aaaa	BLOCK 2 DISK LABEL 60	
05 5DH	0000 bbbb	aaaa bbbb	32−127 (ASCII)
05 5EH	0xxx xxxx	dummy	
:			
07 7FH	0xxx xxxx		
Total size		00 00 08 00H	

4.3 MIDI parameter

Offset address	Description		
00 00H	0xxx xxxx	dummy	
:			
00 3FH	0xxx xxxx		
00 40H	0000 aaaa	RX CHANNEL 1	
00 41H	0000 bbbb	aaaa bbbb	0−16 0−16 ··· 1−16 CH 16 ··· OFF
:			
00 4EH	0000 aaaa	RX CHANNEL 8	
00 4FH	0000 bbbb	aaaa bbbb	0−16
00 50H	0000 aaaa	RX PROCRAM CHANGE 1	
00 51H	0000 bbbb	aaaa bbbb	0 : OFF 1 : ON
:			
00 5EH	0000 aaaa	RX PROCRAM CHANGE 8	
00 5FH	0000 bbbb	aaaa bbbb	0 : OFF 1 : ON
00 60H	0000 aaaa	RX BENDER 1	
00 61H	0000 bbbb	aaaa bbbb	0 : OFF 1 : ON
:			
00 6EH	0000 aaaa	RX BENDER 8	
00 6FH	0000 bbbb	aaaa bbbb	0 : OFF 1 : ON
00 70H	0000 aaaa	RX MODULATION 1	
00 71H	0000 bbbb	aaaa bbbb	0 : OFF 1 : ON
:			
00 7EH	0000 aaaa	RX MODULATION 8	
00 7FH	0000 bbbb	aaaa bbbb	0 : OFF 1 : ON
01 00H	0000 aaaa	RX HOLD 1	
01 01H	0000 bbbb	aaaa bbbb	0 : OFF 1 : ON
:			
01 0EH	0000 aaaa	RX HOLD 8	
01 0FH	0000 bbbb	aaaa bbbb	0 : OFF 1 : ON
01 1CH	0000 aaaa	RX AFTER TOUCH 1	
:			1 : ON
:			
01 1EH	0000 aaaa	RX AFTER TOUCH 8	
01 1FH	0000 bbbb	aaaa bbbb	0 : OFF 1 : ON
01 20H	0000 aaaa	RX VOLUME 1	
01 21H	0000 bbbb	aaaa bbbb	0 : OFF 1 : ON
:			
:			
01 2EH	0000 aaaa	RX VOLUME 8	
01 2FH	0000 bbbb	aaaa bbbb	0 : OFF 1 : ON
01 30H	0000 aaaa	RX BEND RANGE 1	
01 31H	0000 bbbb	aaaa bbbb	0 : OFF 1 : ON
:			
:			
01 3EH	0000 aaaa	RX BEND RANGE 8	
01 3FH	0000 bbbb	aaaa bbbb	0 : OFF 1 : ON
01 40H	0xxx xxxx	dummy	
01 41H	0xxx xxxx		
01 42H	0000 aaaa	SYSTEM EXCLUSIVE	
01 43H	0000 bbbb	aaaa bbbb	0 : OFF 1 : ON
01 44H	0000 aaaa	DEVICE ID	
01 45H	0000 bbbb	aaaa bbbb	0−15
01 46H	0000 aaaa	RX PROCRAM CHANGE NUMBER 1	
01 47H	0000 bbbb	aaaa bbbb	0−127
:			
02 06H	0000 aaaa	RX PROGRAM CHANGE NUMBER 32	
02 07H	0000 bbbb	aaaa bbbb	0−127
02 08H	0xxx xxxx	dummy	
:			
03 7FH	0xxx xxxx		
Total size		00 00 04 00H	

4.4 Tone parameters

Offset address	Description		
00 00H	0000 aaaa	TONE NAME 1	
00 01H	0000 bbbb	aaaa bbbb	32−127 (ASCII)
:			
:			
00 0EH	0000 aaaa	TONE NAME 8	
00 0FH	0000 bbbb	aaaa bbbb	32−127 (ASCII)
00 10H	0000 aaaa	OUTPUT ASSIGN	
00 11H	0000 bbbb	aaaa bbbb	0−7
00 12H	0000 aaaa	SOURCE TONE	
00 13H	0000 bbbb	aaaa bbbb	0−31
00 14H	0000 aaaa	ORIG/SUB TONE	
00 15H	0000 bbbb	aaaa bbbb	0 : DRG 1 : SUB
00 16H	0000 aaaa	SAMPLING FREQUENCY	
00 17H	0000 bbbb	aaaa bbbb	0 : 30kHz 1 : 15kHz
00 18H	0000 aaaa	ORIG KEY NUMBER	
00 19H	0000 bbbb	aaaa bbbb	11−120 (MIDI FORMAT)
00 1AH	0000 aaaa	WAVE BANK	
00 1BH	0000 bbbb	aaaa bbbb	0 : A 1 : B
00 1CH	0000 aaaa	WAVE SEGMENT TOP	
00 1DH	0000 bbbb	aaaa bbbb	0−17
00 1EH	0000 aaaa	WAVE SEGMENT LENGTH	
00 1FH	0000 bbbb	aaaa bbbb	0−18
00 20H	0000 aaaa	START POINT	
00 21H	0000 bbbb		
00 22H	0000 cccc	aaaa bbbb cccc dddd eeee ffff	
00 23H	0000 dddd		000000−221180
00 24H	0000 eeee		
00 25H	0000 ffff		
00 26H	0000 aaaa	END POINT	
00 27H	0000 bbbb		
00 28H	0000 cccc	aaaa bbbb cccc dddd eeee ffff	
00 29H	0000 dddd		000004−221184
00 2AH	0000 eeee		
00 2BH	0000 ffff		

00 2DH	0000 bbbb		
00 2EH	0000 cccc	aaaa bbbb cccc dddd eeee ffff	
00 2FH	0000 dddd		000000－221184
00 30H	0000 eeee		
00 31H	0000 ffff		

00 32H	0000 aaaa	LOOP MODE	
00 33H	0000 bbbb	aaaa bbbb	0 : Fwd 1 : Alt 2 : 1Shot 3 : Reverse

00 34H	0000 aaaa	TVA LFO DEPTH	
00 35H	0000 bbbb	aaaa bbbb	0－127

00 36H	0xxx xxxx	dummy	
00 37H	0xxx xxxx		

00 38H	0000 aaaa	LFO RATE	
00 39H	0000 bbbb	aaaa bbbb	0－127

00 3AH	0000 aaaa	LFO SYNC	
00 3BH	0000 bbbb	aaaa bbbb	0 : OFF 1 : ON

00 3CH	0000 aaaa	LFO DELAY	
00 3DH	0000 bbbb	aaaa bbbb	0－127

00 3EH	0xxx xxxx	dummy	
00 3FH	0xxx xxxx		

00 40H	0000 aaaa	LFO MODE	
00 41H	0000 bbbb	aaaa bbbb	0 : NORMAL 1 : ONE SHOT

00 42H	0000 aaaa	OSC LFO DEPTH	
00 43H	0000 bbbb	aaaa bbbb	0－127

00 44H	0000 aaaa	LFO POLARITY	
00 45H	0000 bbbb	aaaa bbbb	0 : Sine 1 : Peak hold

00 46H	0000 aaaa	LFO OFFSET	
00 47H	0000 bbbb	aaaa bbbb	0－127

00 48H	0000 aaaa	TRANSPOSE	
00 49H	0000 bbbb	aaaa bbbb	0－127

00 4AH	0000 aaaa	FINE TUNE	
00 4BH	0000 bbbb	aaaa bbbb	－64－＋63

00 4CH	0000 aaaa	TVF CUT OFF	
00 4DH	0000 bbbb	aaaa bbbb	0－127

00 4EH	0000 aaaa	TVF RESONANCE	
00 4FH	0000 bbbb	aaaa bbbb	0－127

00 50H	0000 aaaa	TVF KEY FOLLOW	
00 51H	0000 bbbb	aaaa bbbb	0－127

00 52H	0xxx xxxx	dummy	
00 53H	0xxx xxxx		

00 54H	0000 aaaa	TVF LFO DEPTH	
00 55H	0000 bbbb	aaaa bbbb	0－127

00 56H	0000 aaaa	TVF EG DEPTH	
00 57H	0000 bbbb	aaaa bbbb	0－127

00 58H	0000 aaaa	TVF EG POLARITY	
00 59H	0000 bbbb	aaaa bbbb	0 : NORMAL 1 : REVERSE

00 6AH	0000 aaaa	TVF LEVEL CURVE	
00 5BH	0000 bbbb	aaaa bbbb	0－5

00 5CH	0000 aaaa	TVF KEY RATE FOLLOW	
00 5DH	0000 bbbb	aaaa bbbb	0－127

00 5EH	0000 aaaa	TVF VELOCITY RATE FOLLOW	
00 5FH	0000 bbbb	aaaa bbbb	0－127

00 60H	0xxx xxxx	dummy	
00 61H	0xxx xxxx		

00 62H	0000 aaaa	TVF SWITCH	
00 63H	0000 bbbb	aaaa bbbb	0 : OFF 1 : ON

00 64H	0000 aaaa	0ENDER SWITCH	
00 65H	0000 bbbb	aaaa bbbb	0 : OFF 1 : ON

00 66H	0000 aaaa	TVA ENV SUSTAIN POINT	
00 67H	0000 bbbb	aaaa bbbb	0－7

00 68H	0000 aaaa	TVA ENV END POINT	
00 69H	0000 bbbb	aaaa bbbb	1－7

00 6BH	0000 bbbb	aaaa bbbb	0－127

00 6CH	0000 aaaa	TVA ENV RATE 1	
00 6DH	0000 bbbb	aaaa bbbb	1－127

00 6EH	0000 aaaa	TVA ENV LEVEL 2	
00 6FH	0000 bbbb	aaaa bbbb	0－127

00 70H	0000 aaaa	TVA ENV RATE 2	
00 71H	0000 bbbb	aaaa bbbb	1－127

00 72H	0000 aaaa	TVA ENV LEVEL 3	
00 73H	0000 bbbb	aaaa bbbb	0－127

00 74H	0000 aaaa	TVA ENV RATE 3	
00 75H	0000 bbbb	aaaa bbbb	1－127

00 76H	0000 aaaa	TVA ENV LEVEL 4	
00 77H	0000 bbbb	aaaa bbbb	0－127

00 78H	0000 aaaa	TVA ENV RATE 4	
00 79H	0000 bbbb	aaaa bbbb	1－127

00 7AH	0000 aaaa	TVA ENV LEVEL 5	
00 7BH	0000 bbbb	aaaa bbbb	0－127

00 7CH	0000 aaaa	TVA ENV RATE 5	
00 7DH	0000 bbbb	aaaa bbbb	1－127

00 7EH	0000 aaaa	TVA ENV LEVEL 6	
00 7FH	0000 bbbb	aaaa bbbb	0－127

01 00H	0000 aaaa	TVA ENV RATE 6	
01 01H	0000 bbbb	aaaa bbbb	1－127

01 02H	0000 aaaa	TVA ENV LEVEL 7	
01 03H	0000 bbbb	aaaa bbbb	0－127

01 04H	0000 aaaa	TVA ENV RATE 7	
01 05H	0000 bbbb	aaaa bbbb	1－127

01 06H	0000 aaaa	TVA ENV LEVEL 8	
01 07H	0000 bbbb	aaaa bbbb	0－127

01 08H	0000 aaaa	TVA ENV RATE 8	
01 09H	0000 bbbb	aaaa bbbb	1－127

01 0AH	0xxx xxxx	dummy	
01 0BH	0xxx xxxx		

01 0CH	0000 aaaa	TVA ENV KEY－RATE	
01 0DH	0000 bbbb	aaaa bbbb	0－127

01 0EH	0000 aaaa	LEVEL	
01 0FH	0000 bbbb	aaaa bbbb	0－127

01 10H	0000 aaaa	ENV VEL－RATE	
01 11H	0000 bbbb	aaaa bbbb	0－127

01 12H	0000 aaaa	REC THRESHOLD	
01 13H	0000 bbbb	aaaa bbbb	0－127

01 14H	0000 aaaa	REC PRE－TRIGER	
01 15H	0000 bbbb	aaaa bbbb	0 : 0ms 1 : 10ms 2 : 50ms 3 : 100ms

01 16H	0000 aaaa	REC SAMPLING FREQUENCY	
01 17H	0000 bbbb	aaaa bbbb	0 : 30kHz 1 : 15kHz

01 18H	0000 aaaa	REC START POINT	
01 19H	0000 bbbb		
01 1AH	0000 cccc	aaaa bbbb cccc dddd eeee ffff	
01 1BH	0000 dddd		000000－221180
01 1CH	0000 eeee		
01 1DH	0000 ffff		

01 1EH	0000 aaaa	REC END POINT	
01 1FH	0000 bbbb		
01 20H	0000 cccc	aaaa bbbb cccc dddd eeee ffff	
01 21H	0000 dddd		000004－221184
01 22H	0000 eeee		
01 23H	0000 ffff		

01 24H	0000 aaaa	REC LOOP POINT	
01 25H	0000 bbbb		
01 26H	0000 cccc	aaaa bbbb cccc dddd eeee ffff	
01 27H	0000 dddd		000000－221184
01 28H	0000 eeee		
01 29H	0000 ffff		

01 2AH	0000 aaaa	ZOOM T	
01 2BH	0000 bbbb	aaaa bbbb	0－5

01 2CH	0000 aaaa	ZOOM L	

01 2EH	0000 aaaa	COPY SOURCE	
01 2FH	0000 bbbb	aaaa bbbb	0 - 31
01 30H	0000 aaaa	LOOP TUNE	
01 31H	0000 bbbb	aaaa bbbb	-64 - +63
01 32H	0000 aaaa	TVA LEVEL CURVE	
01 33H	0000 bbbb	aaaa bbbb	0 - 5
01 34H	0xxx xxxx	dummy	
:			
01 4BH	0xxx xxxx		
01 4CH	0000 aaaa	LOOP LENGTH	
01 4DH	0000 bbbb		
01 4EH	0000 cccc	aaaa bbbb cccc dddd eeee ffff	
01 4FH	0000 dddd		000004 - 221184
01 50H	0000 eeee		
01 51H	0000 ffff		
01 52H	0000 aaaa	PITCH FOLLOW	
01 53H	0000 bbbb	aaaa bbbb	0 : OFF 1 : ON
01 54H	0000 aaaa	ENV ZOOM	
01 55H	0000 bbbb	aaaa bbbb	0 - 5
01 56H	0000 aaaa	TVF ENV SUSTAIN POINT	
01 57H	0000 bbbb	aaaa bbbb	0 - 7
01 58H	0000 aaaa	TVF ENV END POINT	
01 59H	0000 bbbb	aaaa bbbb	1 - 7
01 6AH	0000 aaaa	TVF ENV LEVEL 1	
01 5BH	0000 bbbb	aaaa bbbb	0 - 127
01 5CH	0000 aaaa	TVF ENV RATE 1	
01 5DH	0000 bbbb	aaaa bbbb	1 - 127
01 6EH	0000 aaaa	TVF ENV LEVEL 2	
01 6FH	0000 bbbb	aaaa bbbb	0 - 127
01 60H	0000 aaaa	TVF ENV RATE 2	
01 61H	0000 bbbb	aaaa bbbb	1 - 127
01 62H	0000 aaaa	TVF ENV LEVEL 3	
01 63H	0000 bbbb	aaaa bbbb	0 - 127
01 64H	0000 aaaa	TVF ENV RATE 3	
01 65H	0000 bbbb	aaaa bbbb	1 - 127
01 66H	0000 aaaa	TVF ENV LEVEL 4	
01 67H	0000 bbbb	aaaa bbbb	0 - 127
01 68H	0000 aaaa	TVF ENV RATE 4	
01 69H	0000 bbbb	aaaa bbbb	1 - 127
01 6AH	0000 aaaa	TVF ENV LEVEL 5	
01 6BH	0000 bbbb	aaaa bbbb	0 - 127
01 6CH	0000 aaaa	TVF ENV RATE 5	
01 6DH	0000 bbbb	aaaa bbbb	1 - 127
01 6EH	0000 aaaa	TVF ENV LEVEL 6	
01 6FH	0000 bbbb	aaaa bbbb	0 - 127
01 70H	0000 aaaa	TVF ENV RATE 6	
01 71H	0000 bbbb	aaaa bbbb	1 - 127
01 72H	0000 aaaa	TVF ENV LEVEL 7	
01 73H	0000 bbbb	aaaa bbbb	0 - 127
01 74H	0000 aaaa	TVF ENV RATE 7	
01 75H	0000 bbbb	aaaa bbbb	1 - 127
01 76H	0000 aaaa	TVF ENV LEVEL 8	
01 77H	0000 bbbb	aaaa bbbb	0 - 127
01 78H	0000 aaaa	TVF ENV RATE 8	
01 79H	0000 bbbb	aaaa bbbb	1 - 127
01 7AH	0000 aaaa	AFTER TOUCH SWITCH	
01 7BH	0000 bbbb	aaaa bbbb	0 : OFF 1 : ON
01 7CH	0xxx xxxx	dummy	
:			
01 7FH	0xxx xxxx		
Total size		00 00 02 00H	

4.5 SW

Offset address	Description		
00H	0000 aaaa	SW 1 (all)	
01H	0000 bbbb	aaaa bbbb	
02H	0000 aaaa	SW 2 (character)	
03H	0000 bbbb	aaaa bbbb	
04H	0000 aaaa	SW 3 (patch)	
05H	0000 bbbb	aaaa bbbb	
06H	0000 aaaa	ALPHA DIAL	
07H	0000 bbbb	aaaa bbbb	-127 - +127
Total size		00 00 00 08H	

4.6 Wave data

Offset address	Description		
00 00 00H	0aaa aaaa	aaaa aaab bbbb	
00 00 01H	0bbb bb00	12 bit 2's complemet data	
:			
:			
01 3F 7EH			
01 3F 7FH			
Total size		00 01 40 00H	

INDEX

8Kcy Disp ····33
A. T. Assign ····102
A. T. Scnsc ····103
Auto Loop ····81
Auto Sampling ····42
BASIC PROCEDURE ····18
Back−up of System Disks ····26
Backup ····140
Backup of Utility system disk ····145
Bend Rangc ····102
Block Data ····15
CONNECTIONS ····10
CONTENTS ····2
Chain Load ····122
Change System ····149
Checking Input Level ····39
Checking sampling space ····38
Checking the Supplied Disks ····22
Combinc ····51
Convert ····147
Convcrt Disk ····147
Convcrt Load ····147
Copy/Movc ····65
C. Sourcc ····73, 104
DIR Patch ····130
DIR Tonc ····130
Data Programming and Saving ····15
Data Storagc ····17
Dclctc ····63
Digital Filter ····54
Dircctory of Patch Names on a disk ····130
Dircctory of Tone Names on a disk ····130
Disk Error ····150
Disk Protcctcd ····150
Display Wavc ····67
Editing Wave Data ····44
Error Messages ····150
Executing a Command ····21
E. Sourcc ····70, 99
FEATURES ····1
First Note Priority Auto Mode ····28
Format ····139
Function Data and MIDI Data ····17
How to handlc the S−550 ····7
How to handle the Floppy Disks ····8
How to handlc thc Mouse ····9
IMPORTANT NOTES ····6
Initializc ····114
Inscrt S−50 Disk ····150
Inscrt S−550 Disk ····150
Inscrt Sound Disk ····150
Insert Utility Disk ····150
Insert disk ····150
Key Assign ····101
Key Mode ····100
Key Mode ····106
LFO ····82
Last Note Priority Auto Modc ····28
Lavel Set ····132
Level Over ····150
Limiter ····40
Load BL I ····124
Load BL II ····124
Load Func ····125
Load Function Parameters ····125
Load MIDI ····125
Load MIDI Parameters ····125
Load P. PRM ····126
Load Patch Parameters ····126
Load Set I ····123
Load Set II ····124
Load a Tone ····128
Loading ····122
Loading Data From a Disk ····121
Loop ····75
Loop Mode ····76
MIDI Monitor ····120
MIDI Receive Switch ····117
Making a Patch ····98
Manual Sampling ····42
Master ····111
Master Tune ····111
Menu Selection ····19
Message ····117
Mix ····49
Mode Selection ····19
Monitoring the Sampled Wave ····43
Not Execute ····150
OUTLINE ····13
Oct. Shift ····103
Original Key ····39
Output Assign ····103
Output Jack assinged to a Patch ····30
PLAY ····28
PREPARATION FOR PLAYING ····22
Patch Level ····103
Patch Map ····109
Patch Name ····103
Patch PRM ····99
Patch played by a Voice Group ····30
Patches ····17
Powcr−up and Booting ····23

Pre-Trigger ····40
Previous Sampling ····43
Prog. Number ····119
Receive Channel of a Voice Group····29
S-550's Function Mode ····110
S-550's Six Modes ····14
Sampling ····34, 36
Sampling Frequency ····39
Sampling Time ····39
Sampling Treshold ····40
Save ····133
Save BL I ····135
Save BL II ····135
Save Chain ····133
Save FUNC ····136
Save Function ····136
Save MIDI ····136
Save MIDI Function ····136
Save P. PRM ····137
Save Patch Parameters ····137
Save SYS ····142
Save Set I ····134
Save Set II ····135
Save System ····142
Saving ····131
Selecting a Destination Tone ····45
Selecting the Controller Mode ····111
Setting MIDI Functions ····116
Setting MIDI Receive Channel ····117
Settiong Tone Parameters ····69
Setup for Sampling ····34
Sound Data ····15
Split ····105
Split Disp ····32
Standard Display ····31
Sub Menu ····21
System Exclusive ····118
TVA ····92
TVF ····86
Tone List ····37, 38
Tone Map ····96
Tone PRM ····70
Tone Parameters ····16
Trig. Play ····144
Trucate ····46
UTL. Backup ····145
Unison ····100
Unison Detune ····101
V-MIX ····100
V-MIX Ratio ····101
V-SW ····100
V-SW Threshold ····101
VAF ····28
VAL ····28
Value Entry ····20
Voice Fixed Mode ····29
Voice Mode ····28
Volume of a Voice Group ····30
Wave Data ····15
Wave Draw ····59
Wave Loop ····57
Wave Scope ····35
X-Fade ····100

SPECIFICATIONS

S−550 : 16 voice polyphonic digital sampler MIDI sound module.

■ Memory
Wave Data 1024k words
64 Tone/Tone Parameters
32 Patch/Patch Parameters
Function Parameters
MIDI Function Parameters

■ Front Panel
Power Switch
Mode Selector Button
Volume Knob
Cursor Buttons
Menu Button
Sub Menu Button
Command Button
Execute Button
DEC/INC (NO/YES) Buttons
Ten Key Pad (0 to 9, Enter)
Recording Level Control Knob
Line/Mic Selector Button
Volume Knob
Input Jack
Headphone Jack
AUX Control Connector
16 Letter Display Window

■ Rear Panel
Mix Output Jack
Individual Output Jacks x 8
Recording Start Jack
MIDI IN Connector
MIDI OUT Connector
MIDI THRU Connector
RGB Connector for a Color Monitor Display
Composite Connector for a Black and White Monitor Display

■ Disk Drive
3.5" Micro Floppy Disk Drive : Double density, Double Track (2DD)

■ Dimensions
482 (W) × 400 (D) × 88 (H) mm
19" × 15−3/4" × 3−7/16"

■ Weight
7.7kg/17 lb

■ Consumption
32W

■ Accessories
Connection Cord (PJ−1) ×1
MIDI Cable ×1
System Disk ×2
Utility Disk ×1
Mouse (MU−1)
Owner's manual
Guide Book for MIDI

■ Options
Pedal Switch DP−2, BOSS FS−5U
Remote Controller RC−100
RGB Cable (RGB−25N)
3.5" Micro Floppy Disk MF2DD
Sound Library Disks L−501 to 509

*** Specifications are subject to change without notice.**

Roland®

Roland®

11000

UPC 11000